INSIGHT INTO MATHEMATICS

BOOK I

1 2 3 4 5 6 7 8 9 10

NUMBER LINE



INSIGHT INTO MATHEMATICS

BOOK I

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K. Kapur

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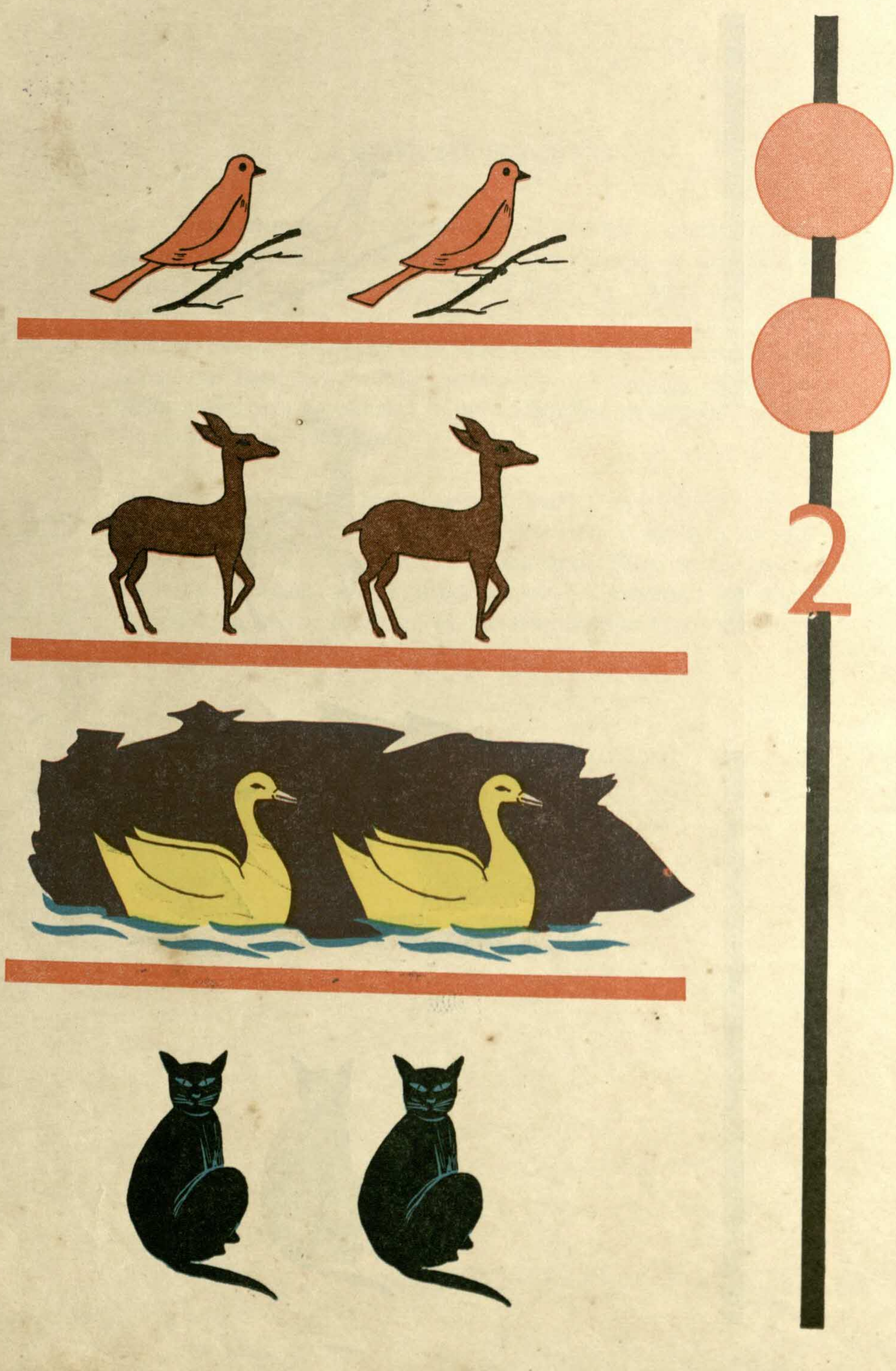
A NOTE TO TEACHERS

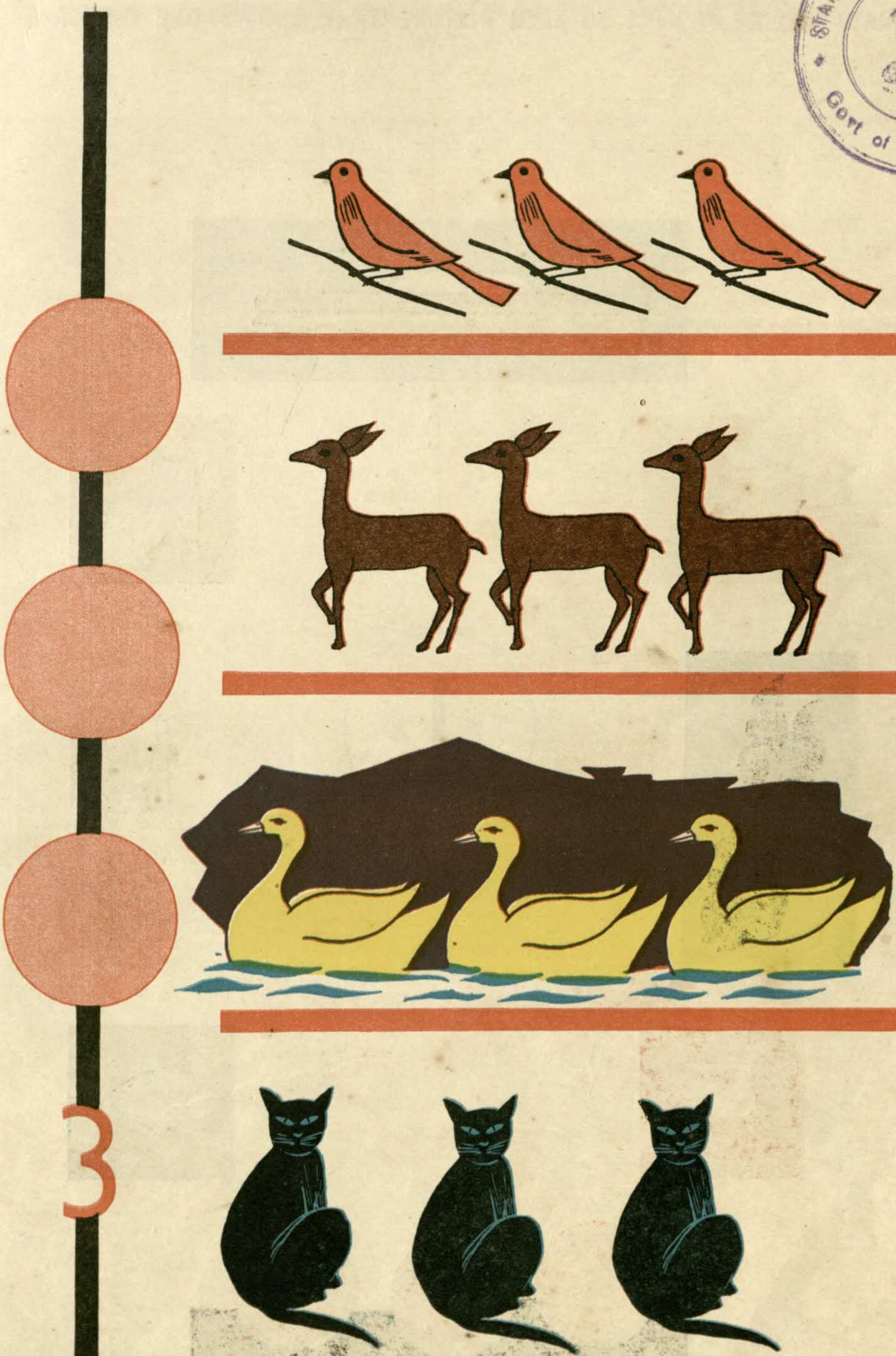
This textbook is accompanied by a Teacher's Guide prepared by the Mathematics Editorial Board and published by the National Council of Educational Research and Training. Since the present textbook is intended to give the child not only skill in handling numbers from 0 to 100 but also some insight into mathematics, the Guide has been designed to explain the philosophy of the new mathematics programme and to give a detailed description of how the textbook should be used.

Teachers are therefore advised to make a careful study of the Teacher's Guide to enable them to communicate to the children ideas meant to be communicated in a particular form. They are also advised to consult Mathematics for Primary Schools—A Teacher's Handbook for Classes I and II prepared by the Mathematics Study Groups of the Council.

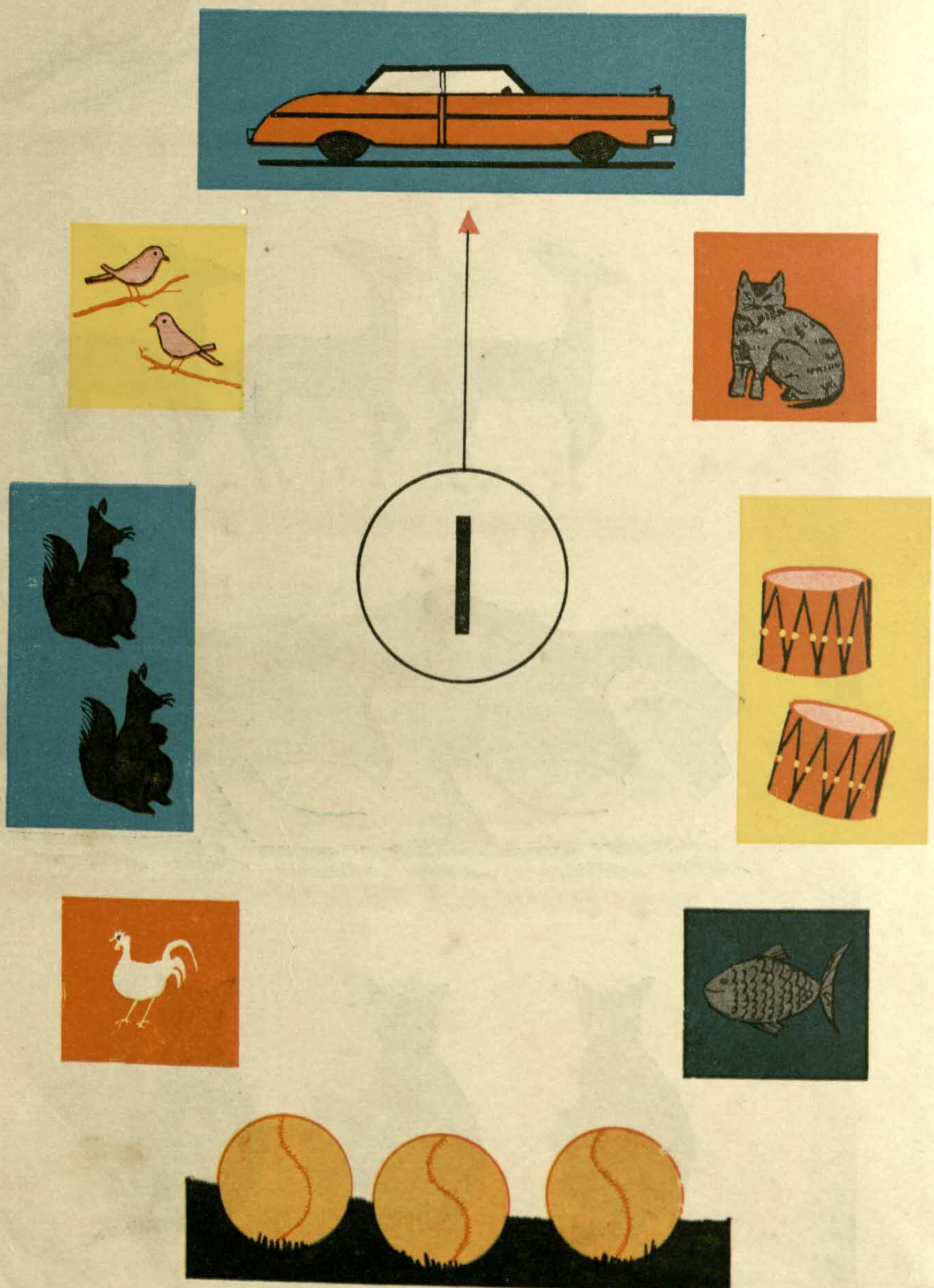
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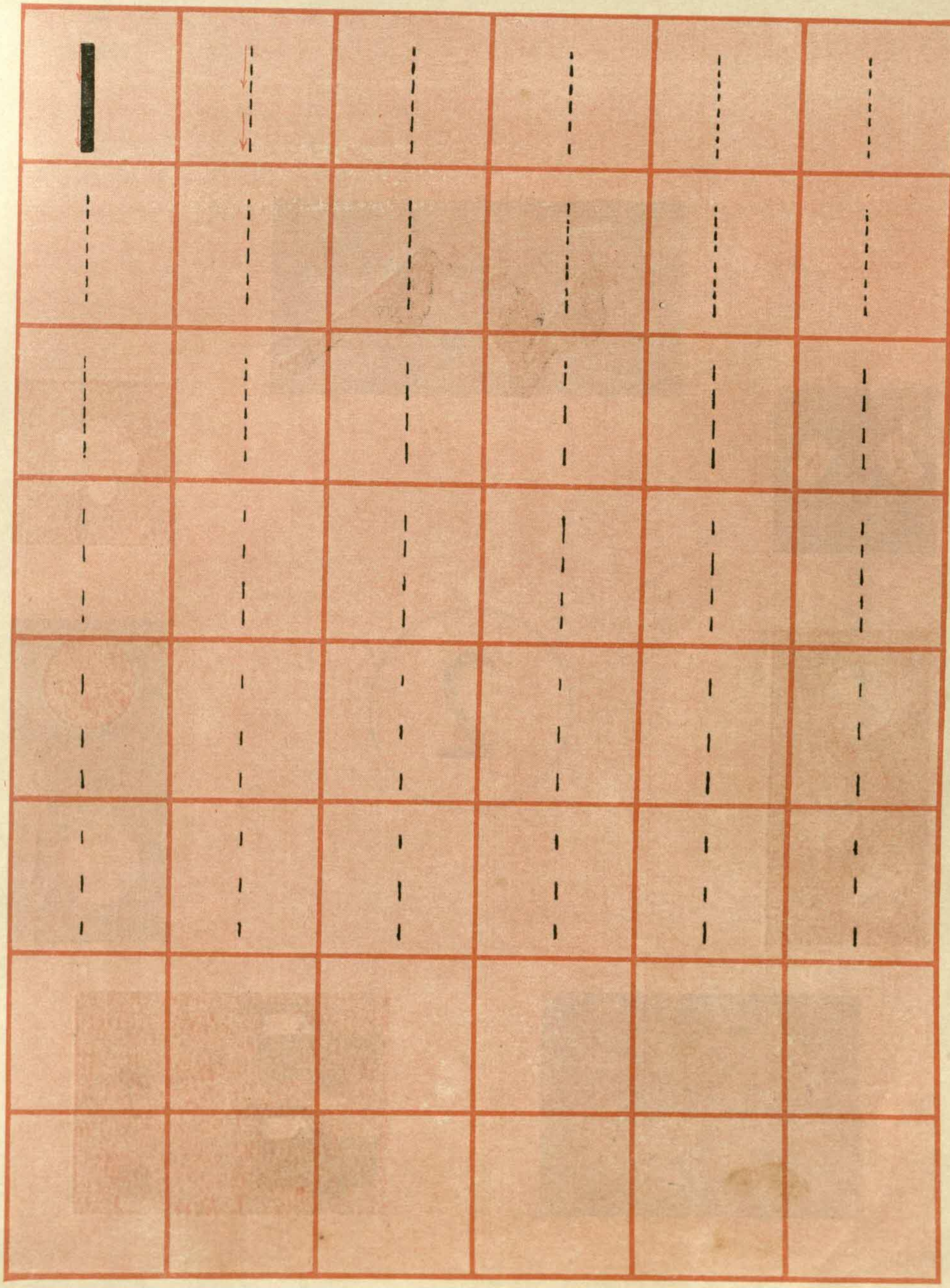

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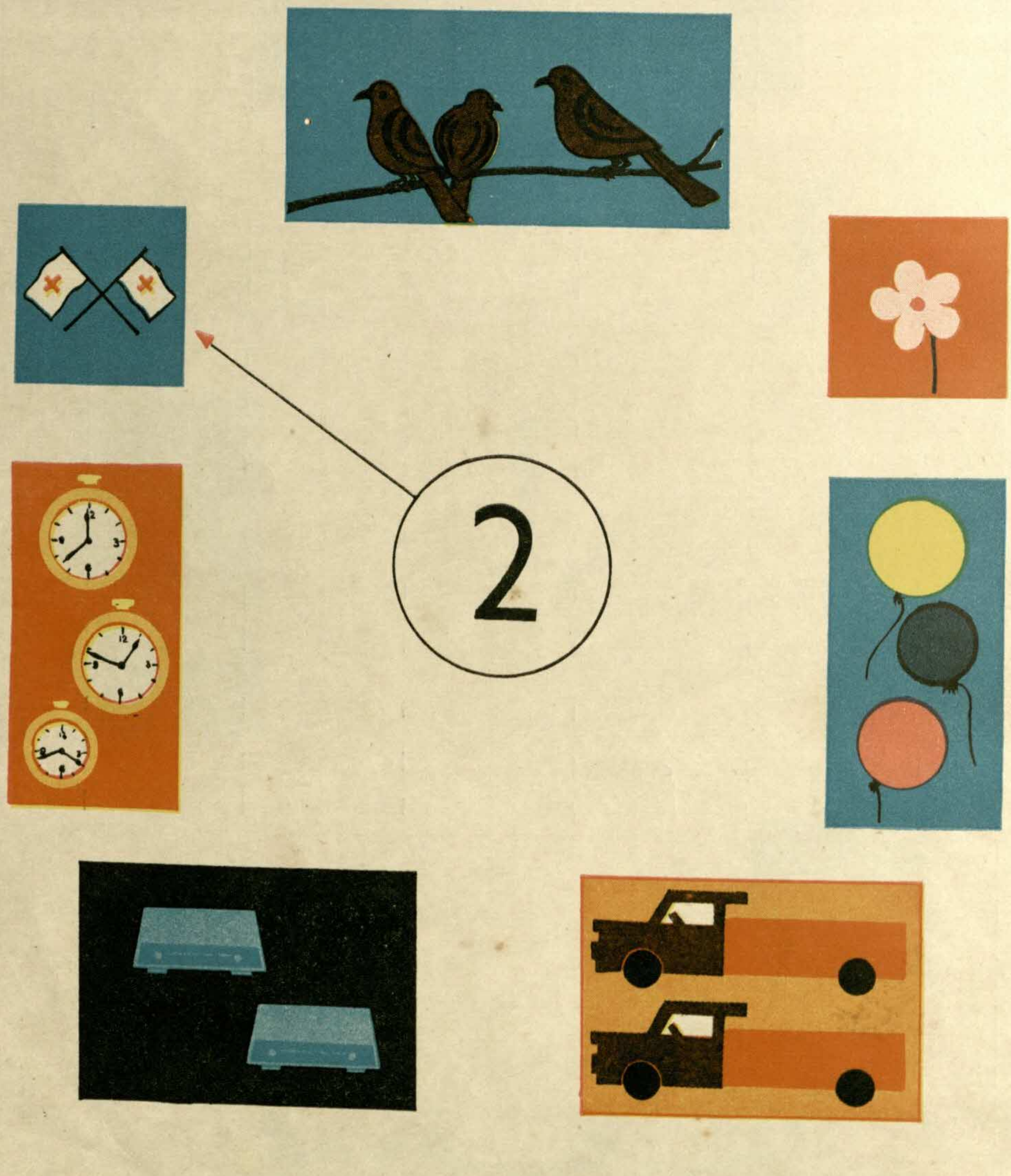
DRAW A LINE FROM 1 TO EACH PICTURE THAT SHOWS ONE OBJECT



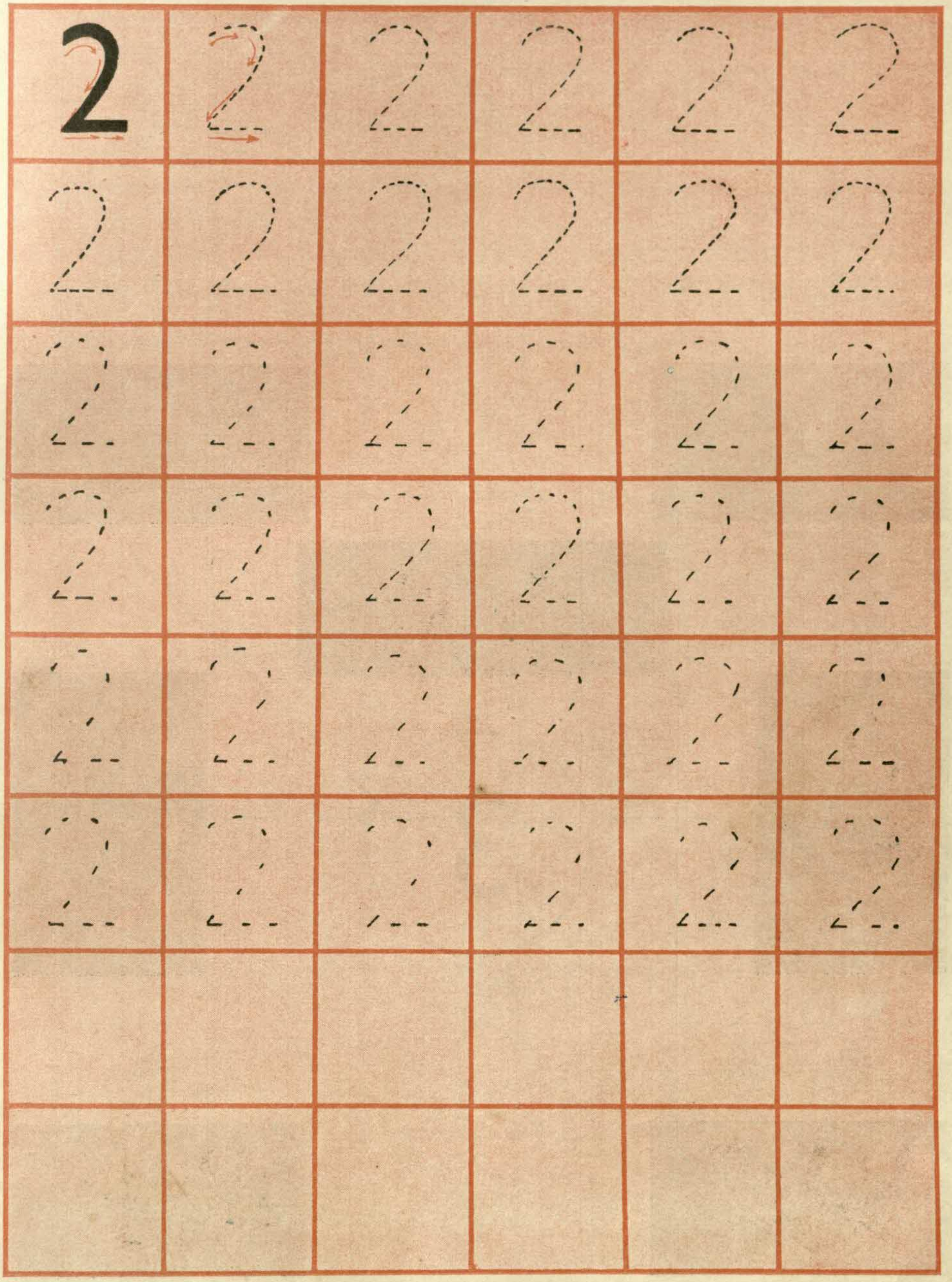
TRACE THE NUMBER 1 AND WRITE IT IN EACH OF THE EMPTY SPACES



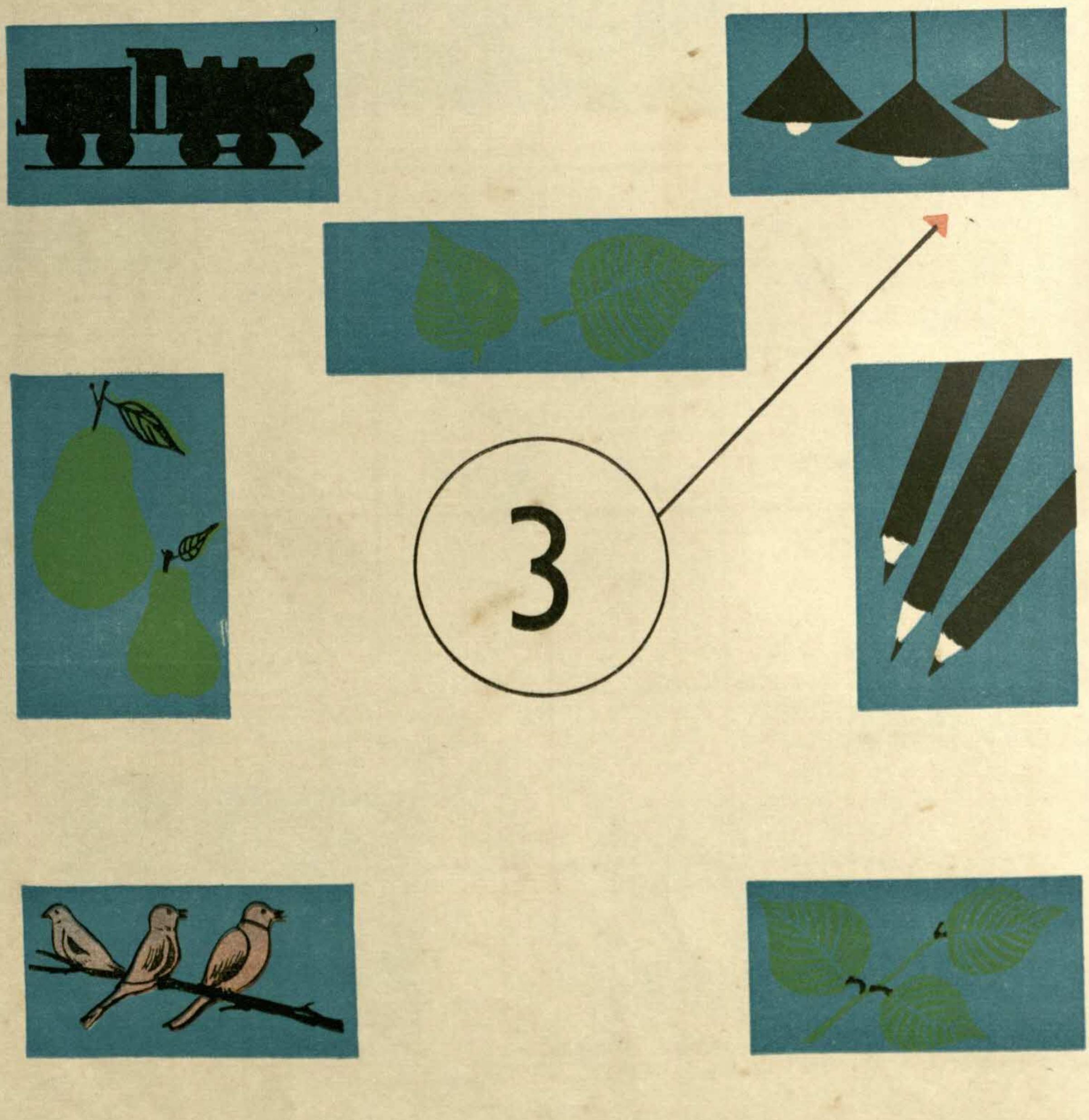
DRAW A LINE FROM 2 TO EACH PICTURE THAT SHOWS TWO OBJECTS



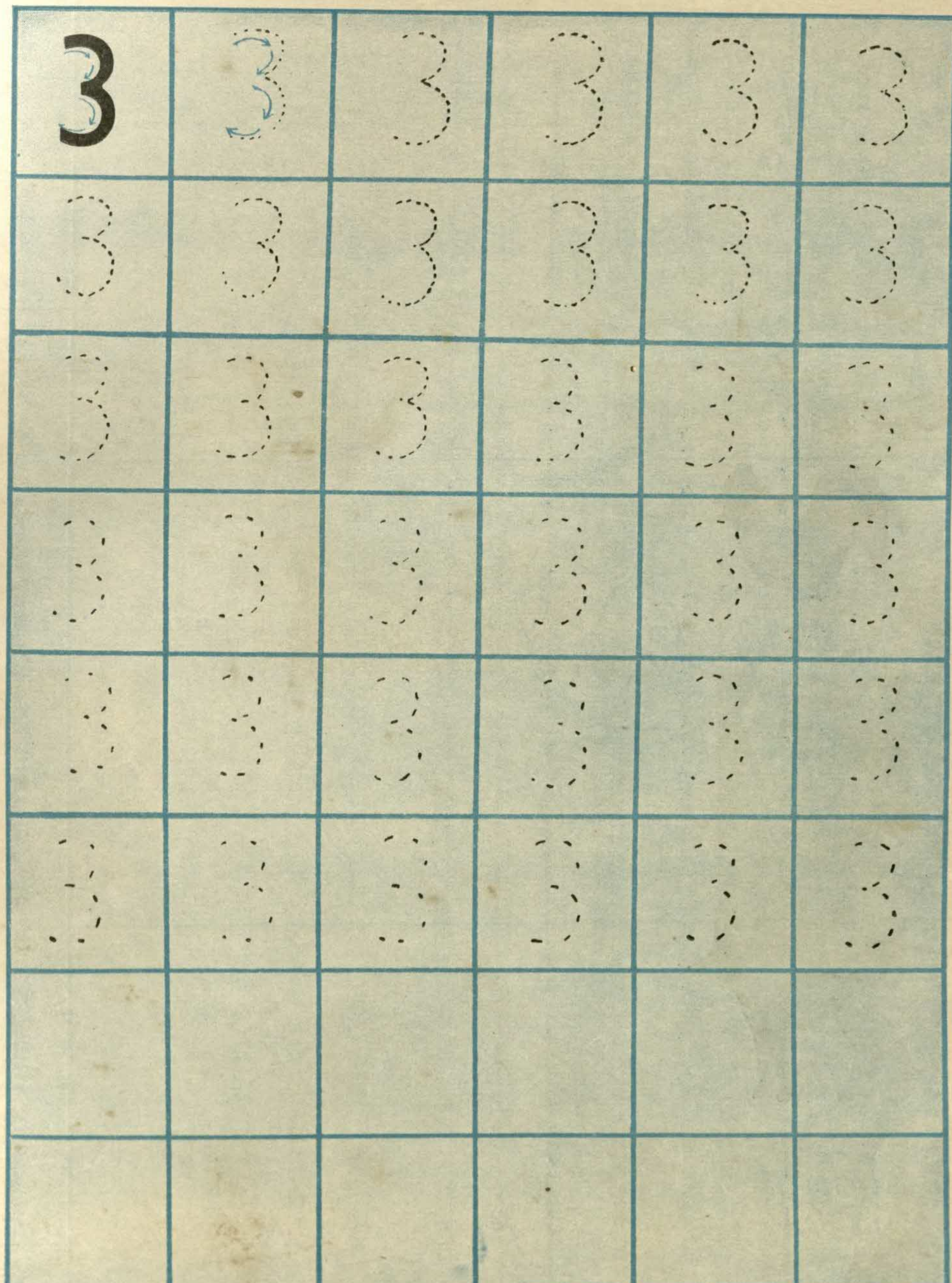
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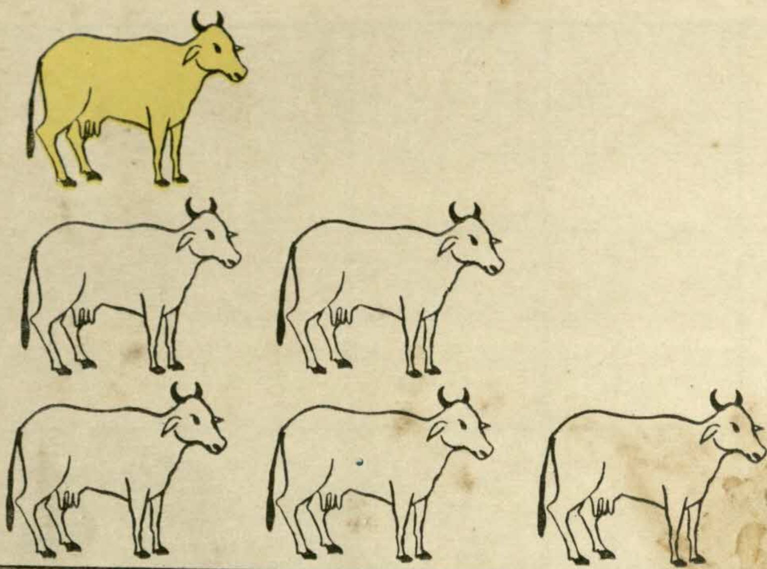
DRAW A LINE FROM 3 TO EACH PICTURE THAT SHOWS THREE OBJECTS



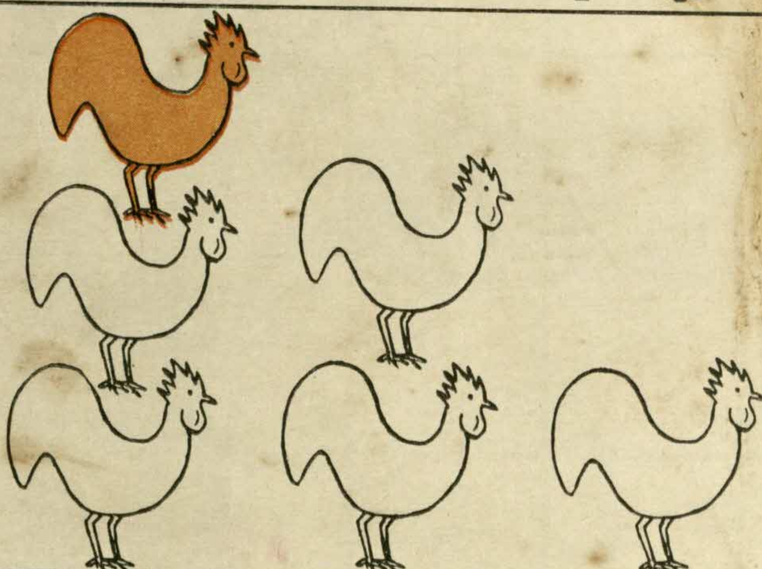
TRACE THE NUMBER 3 AND WRITE IT IN EACH OF THE EMPTY SPACES



COUNT THE OBJECTS AND COLOUR THE PICTURES



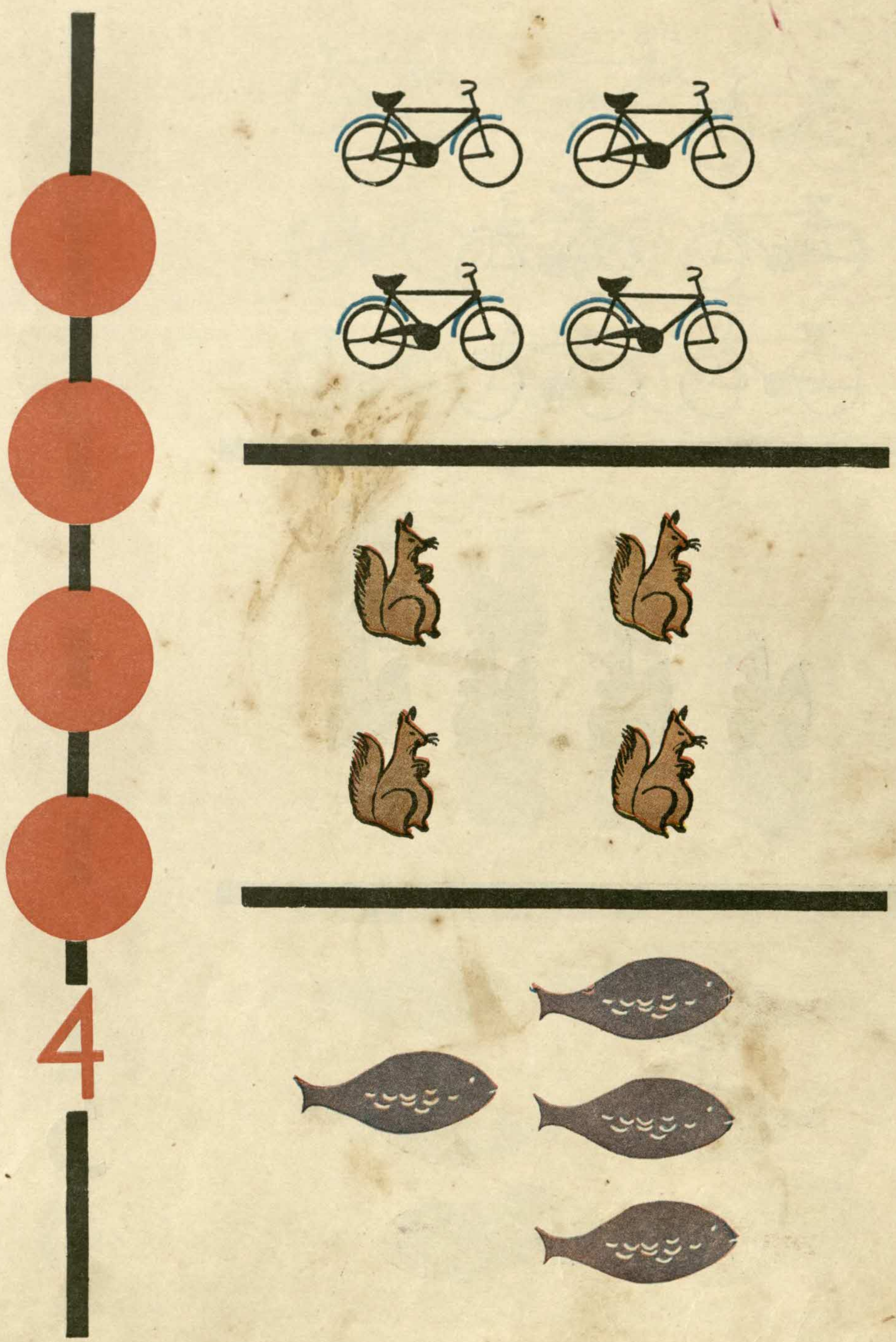
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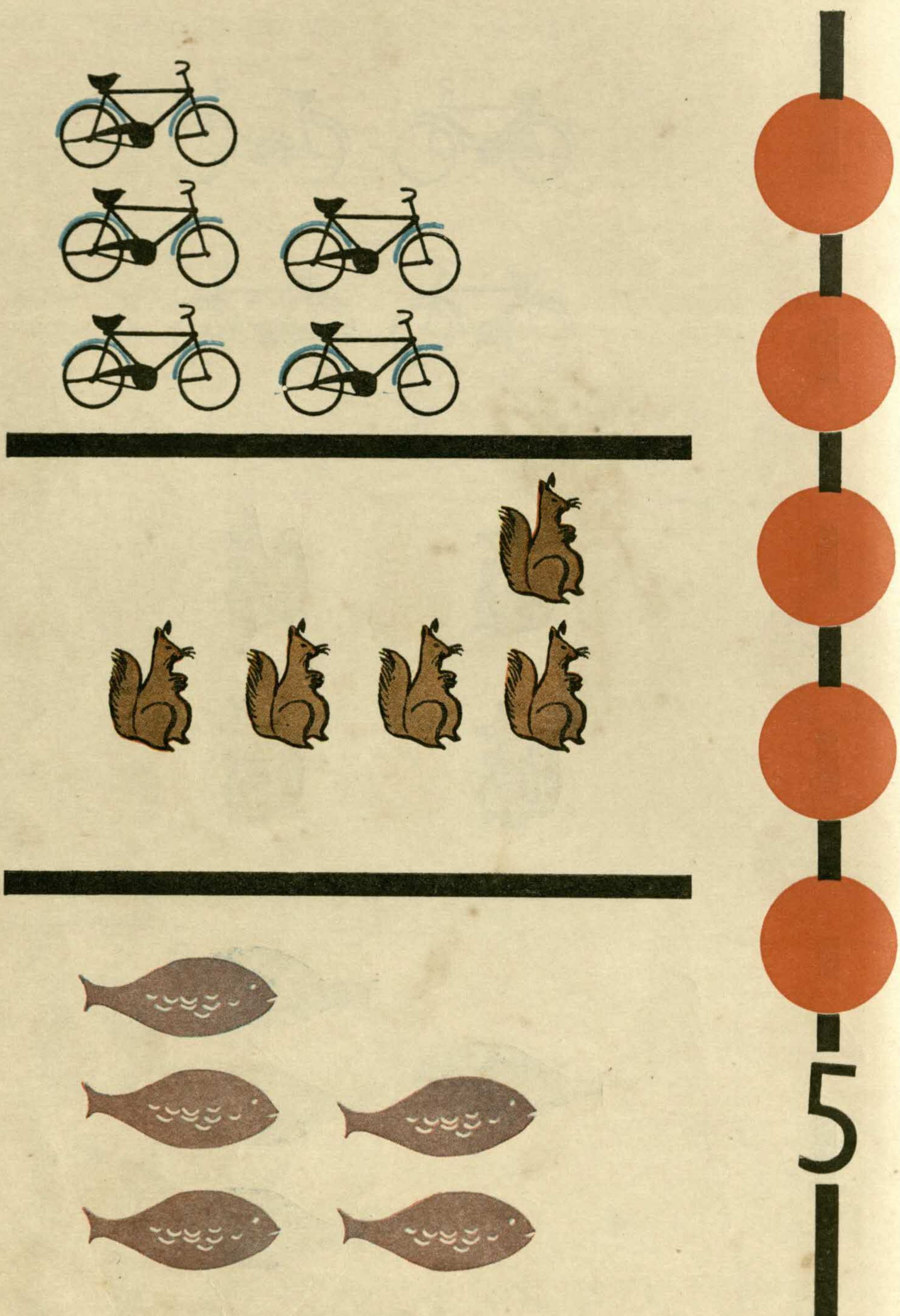


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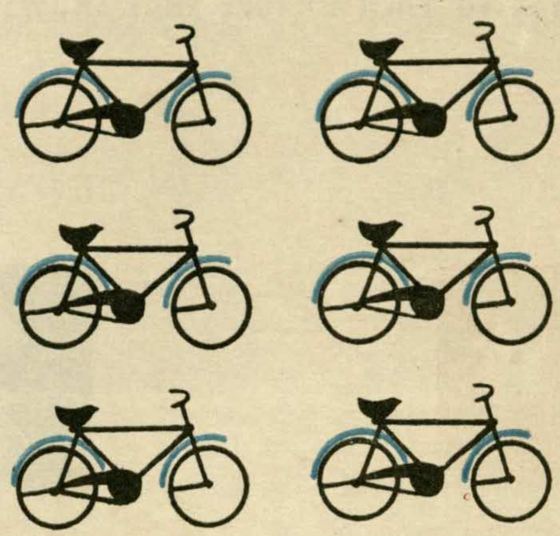


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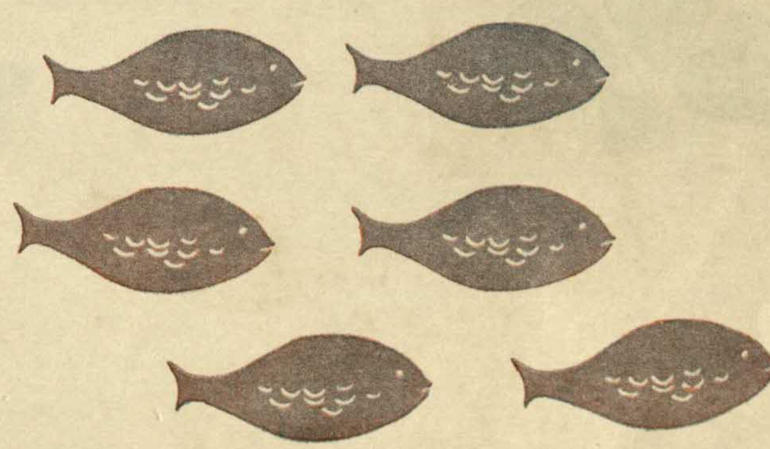

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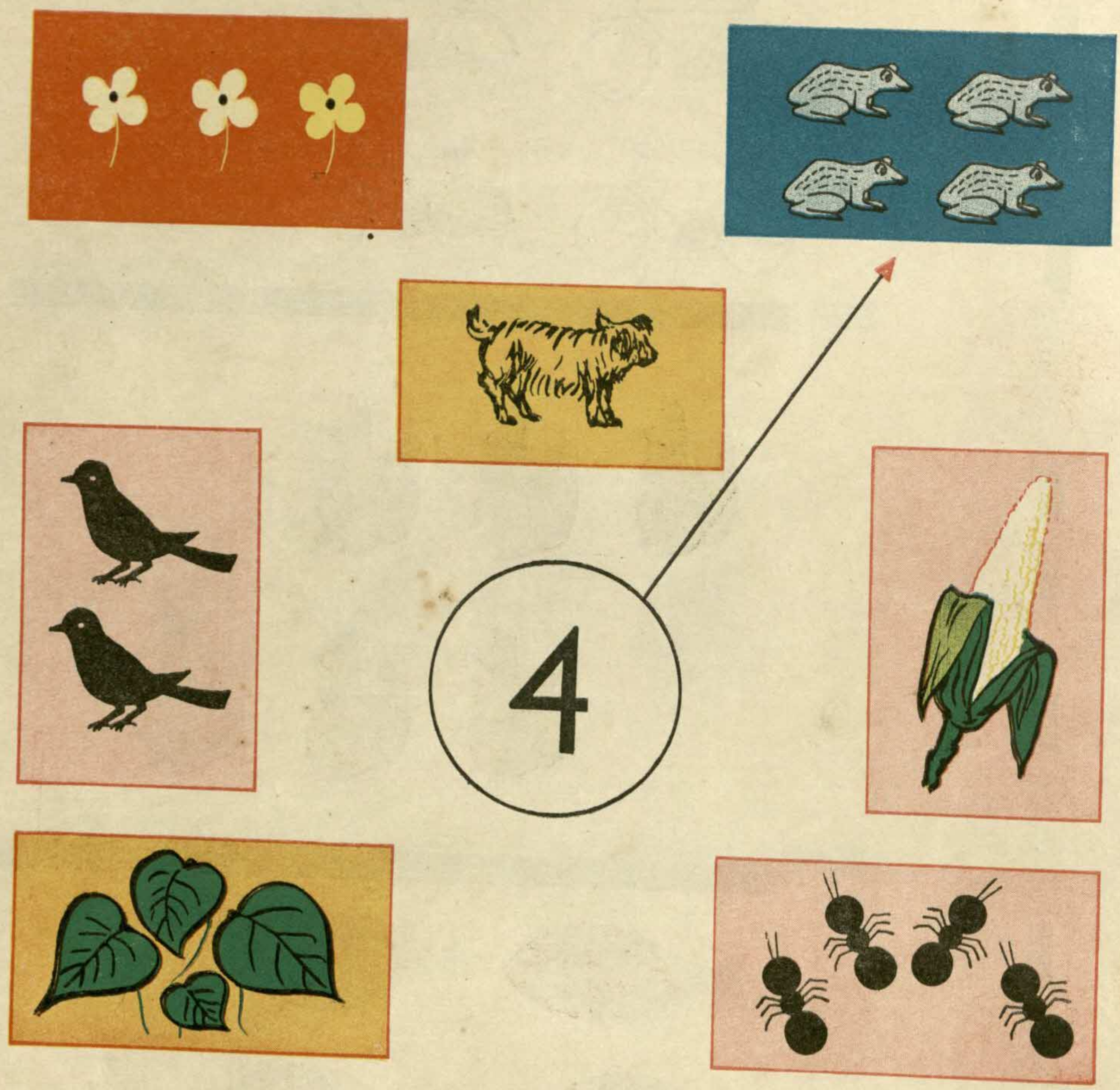

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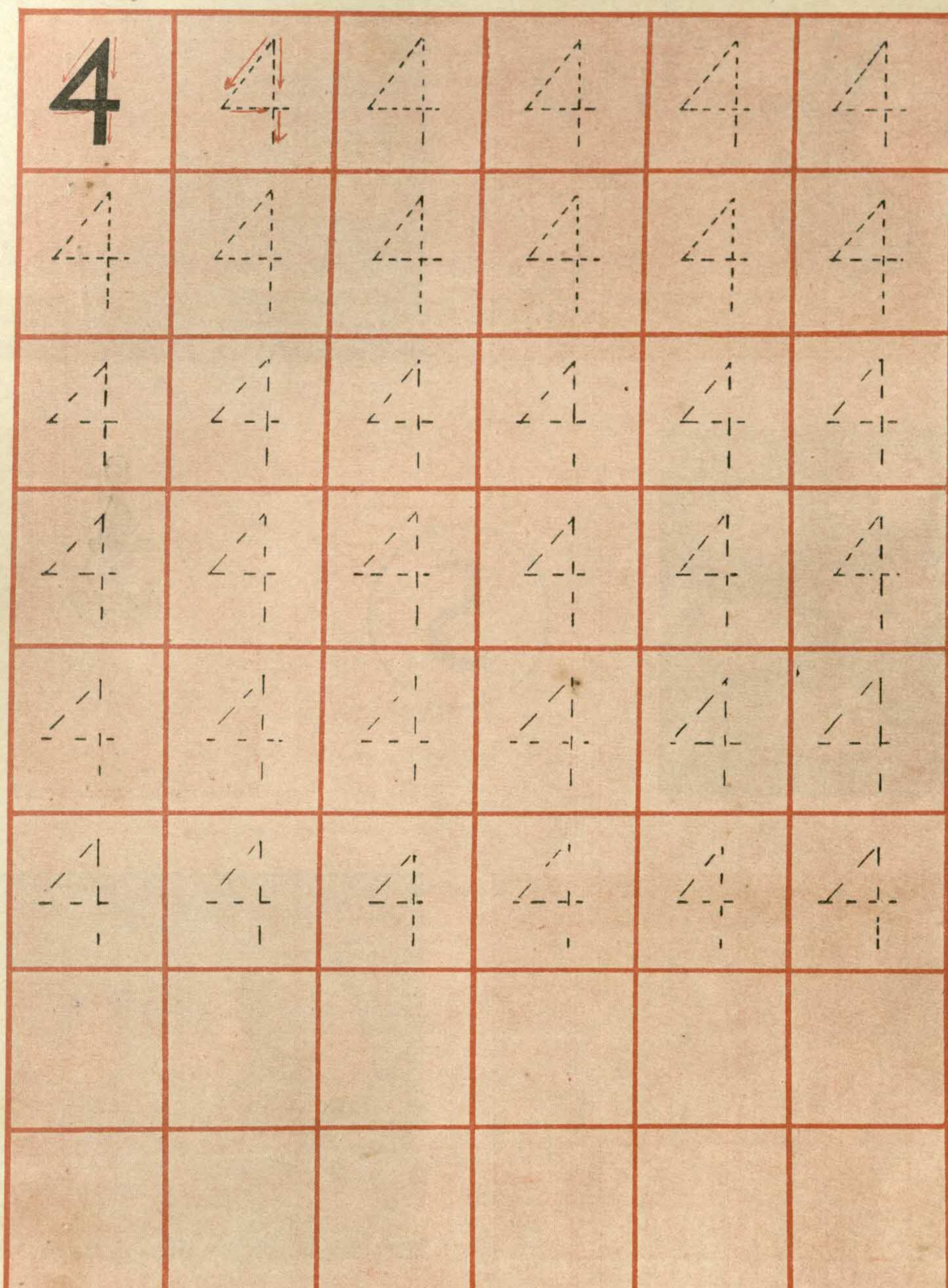


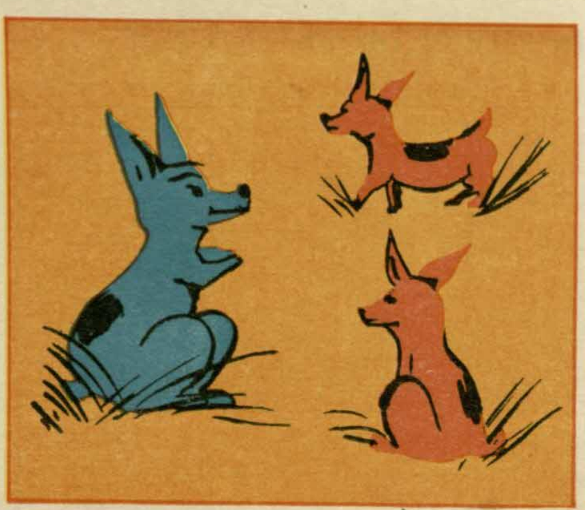


DRAW A LINE FROM 4 TO EACH PICTURE THAT SHOWS FOUR OBJECTS



TRACE THE NUMBER 4 AND WRITE IT IN EACH OF THE EMPTY SPACES



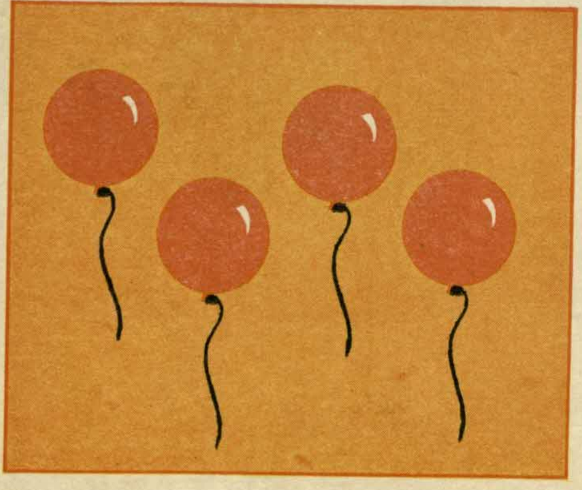


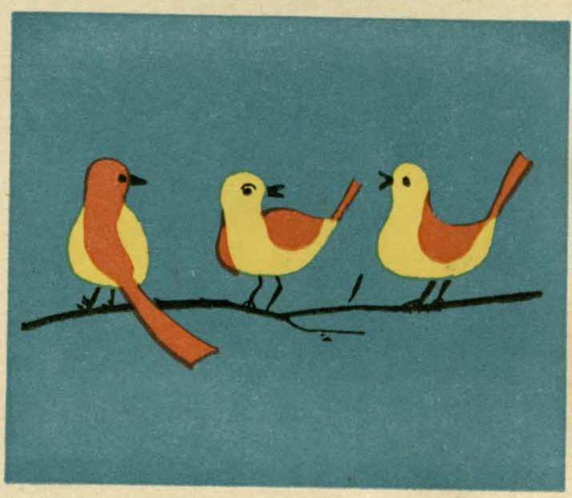




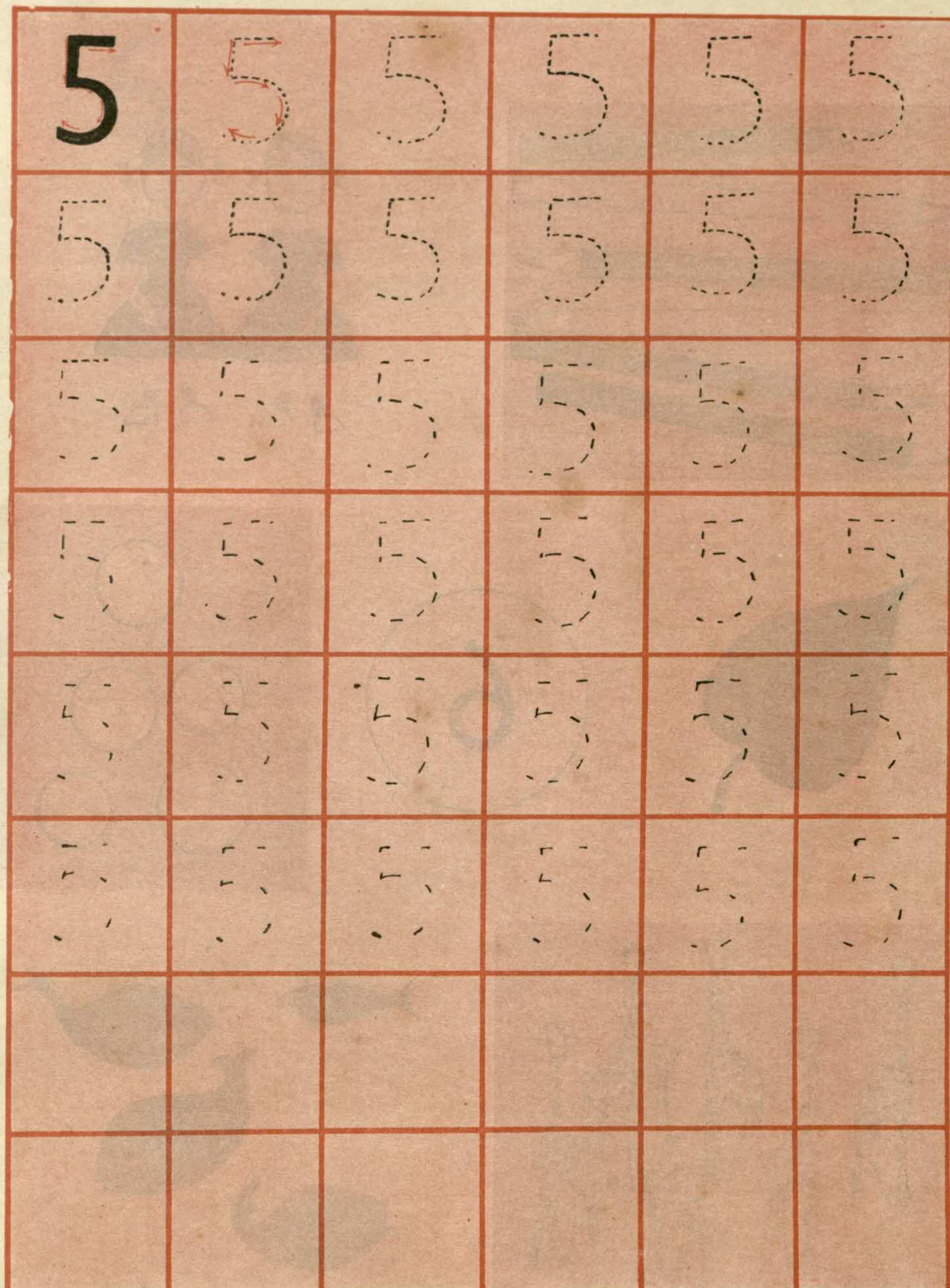
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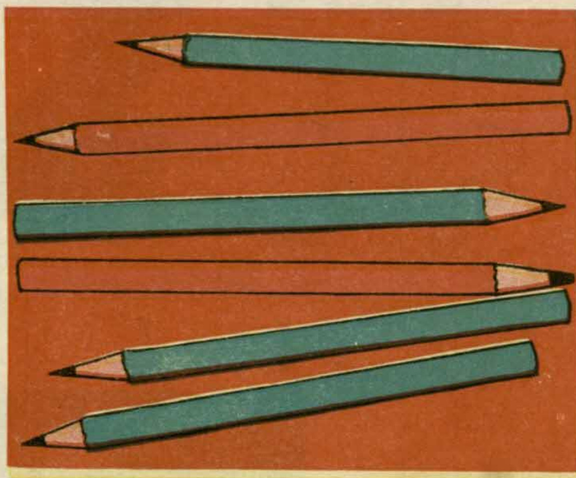


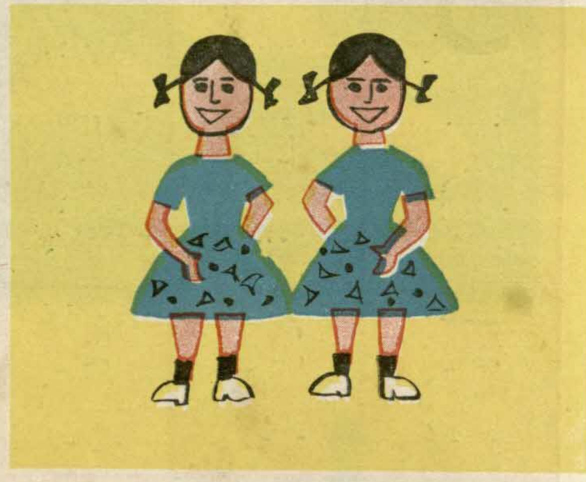


TRACE THE NUMBER 5 AND WRITE IT IN EACH OF THE EMPTY SPACES



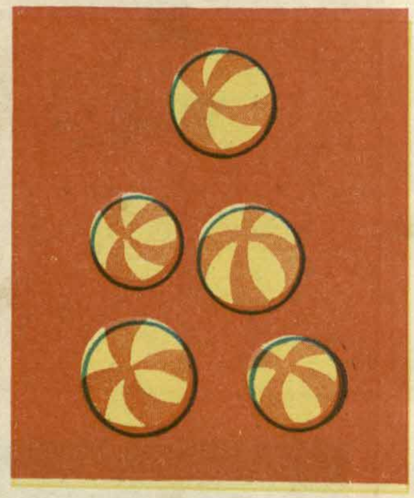
DRAW A LINE FROM 6 TO EACH PICTURE THAT SHOWS SIX OBJECTS



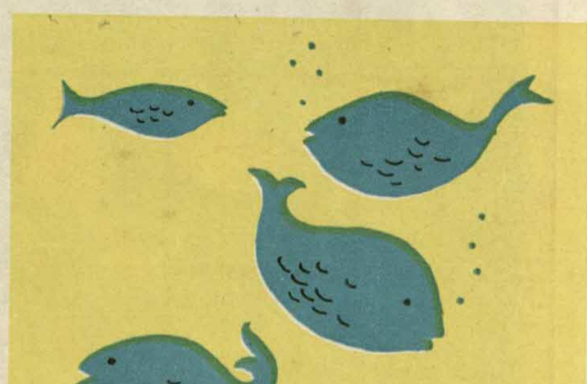




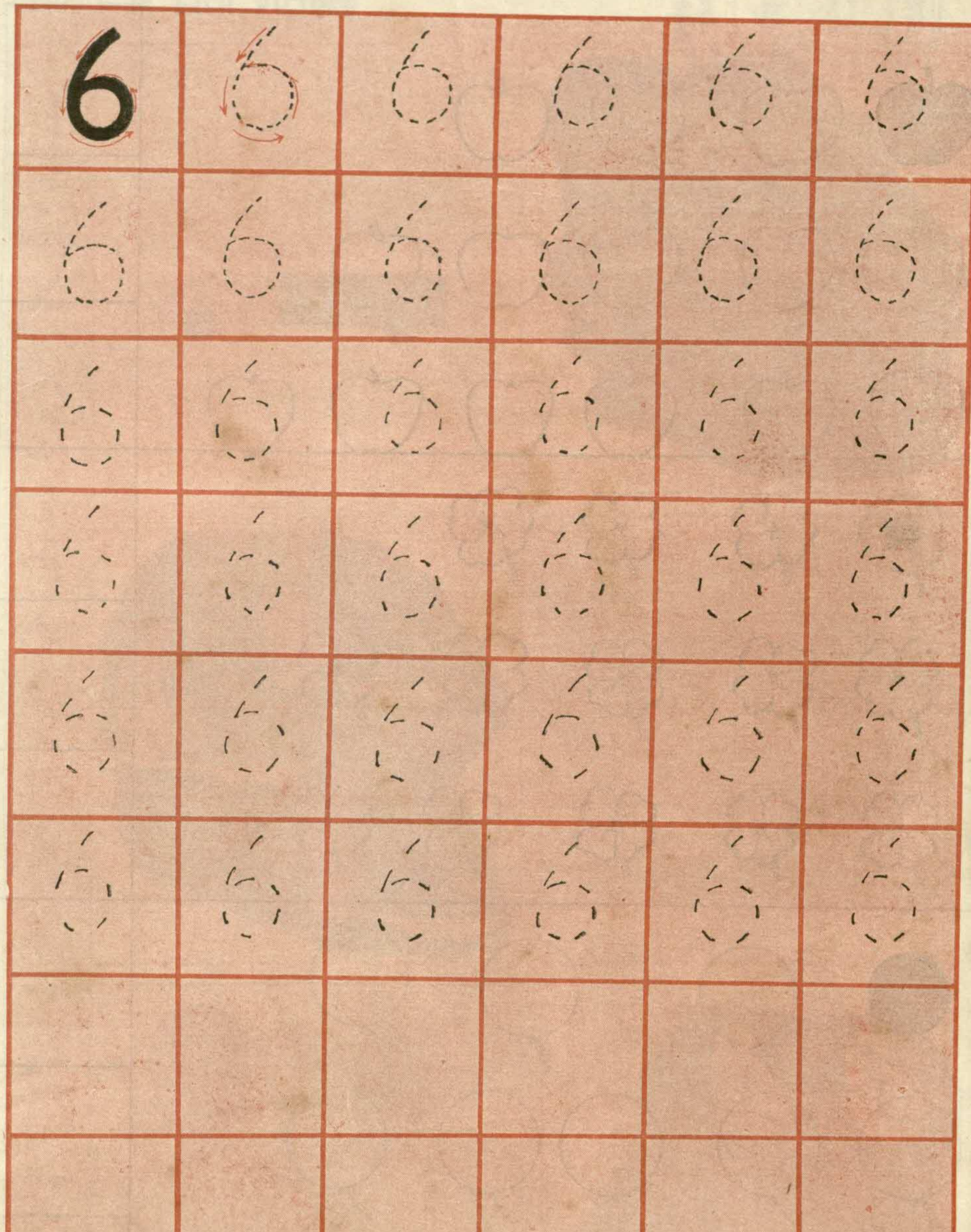
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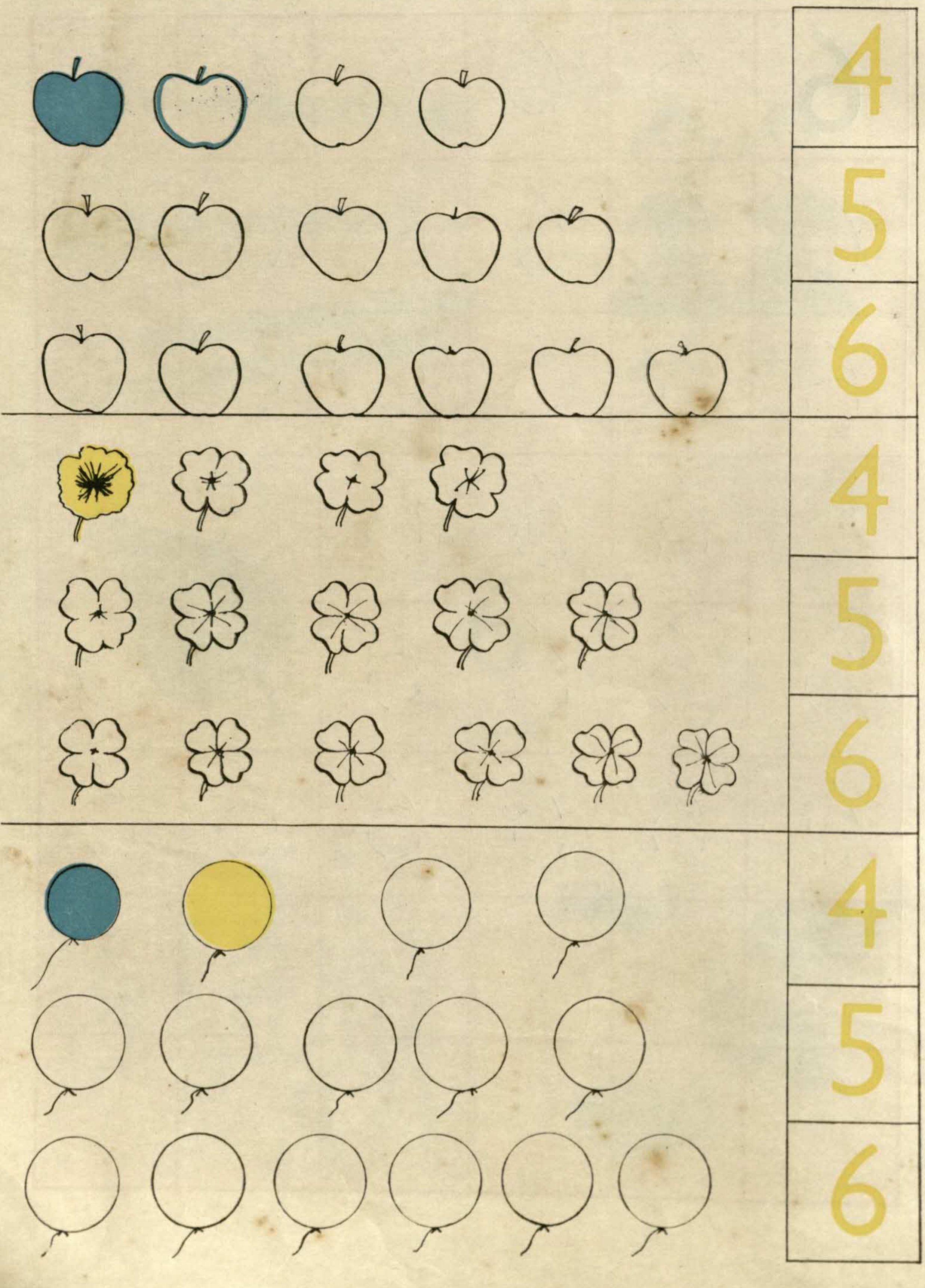




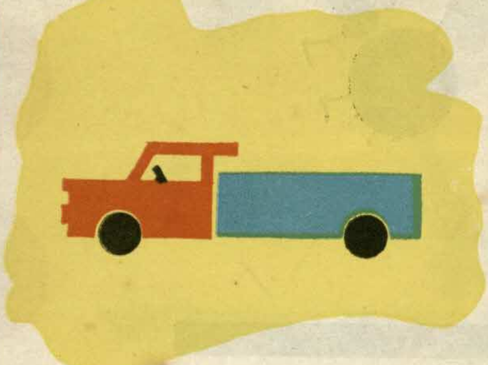
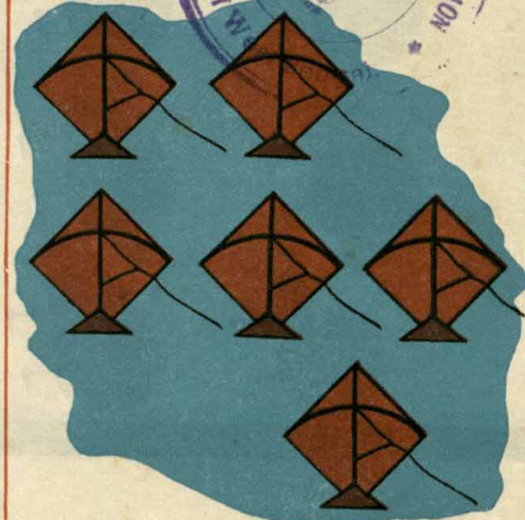
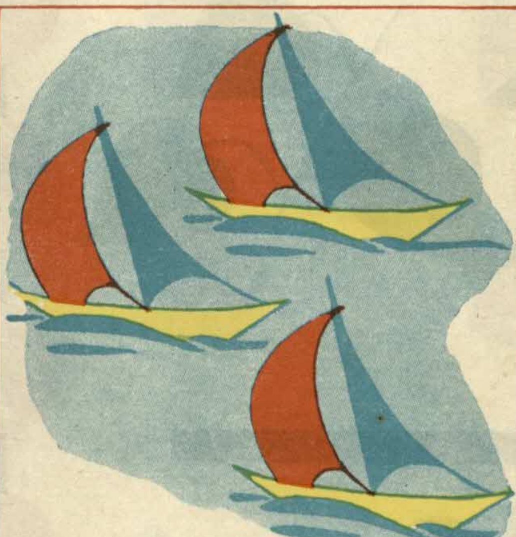
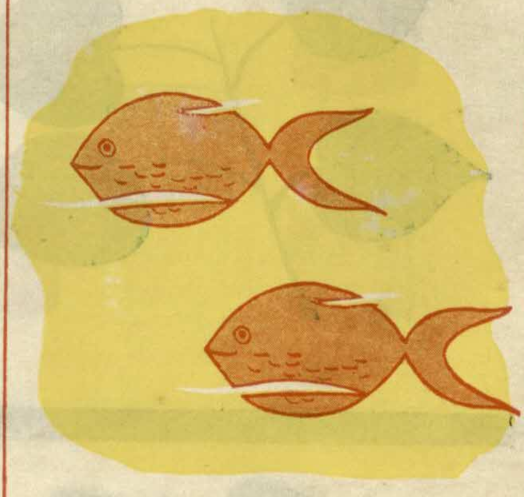
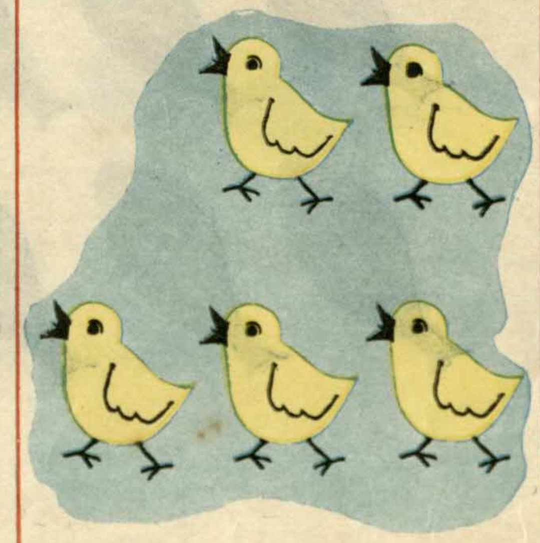
TRACE THE NUMBER 6 AND WRITE IT IN EACH OF THE EMPTY SPACES

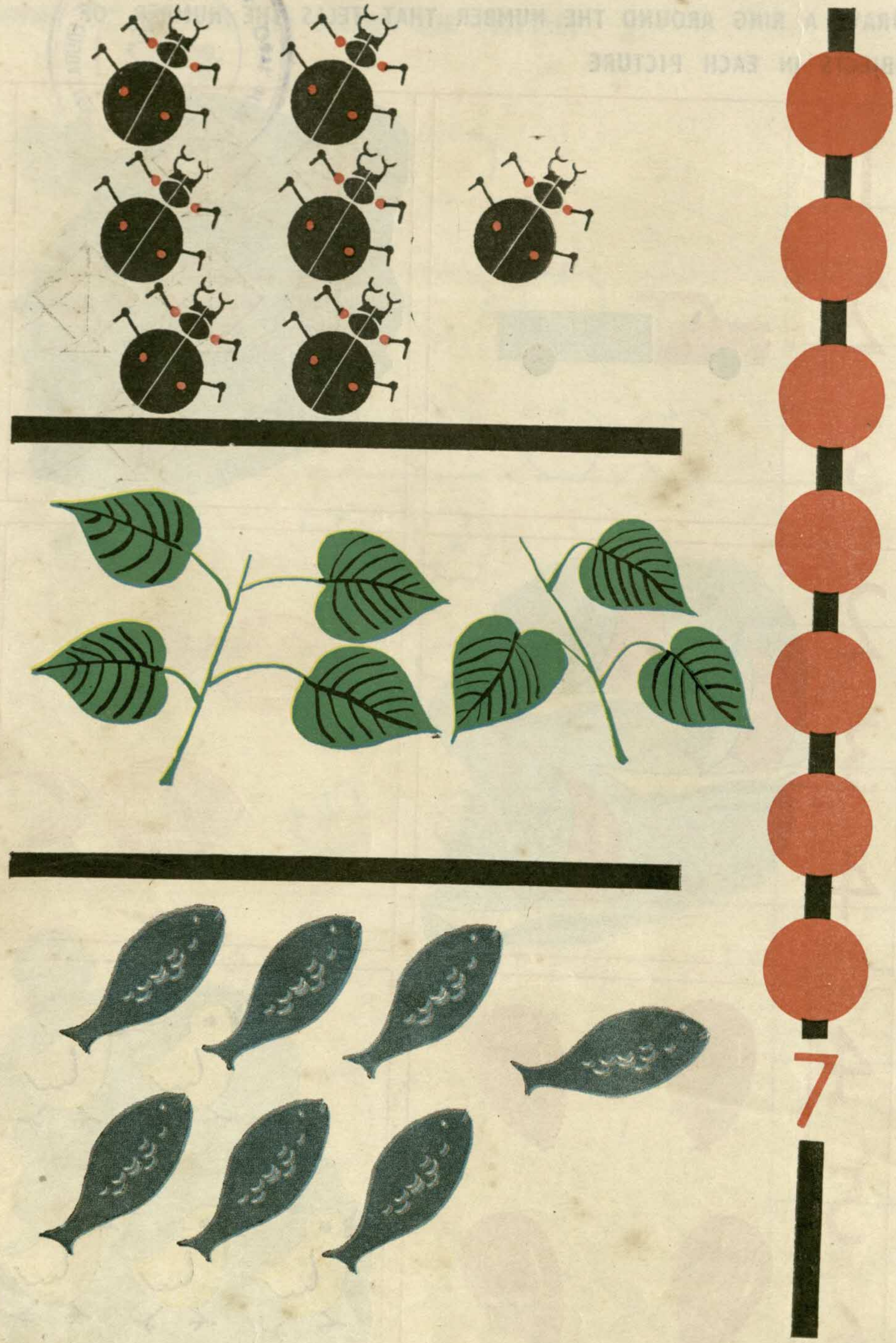


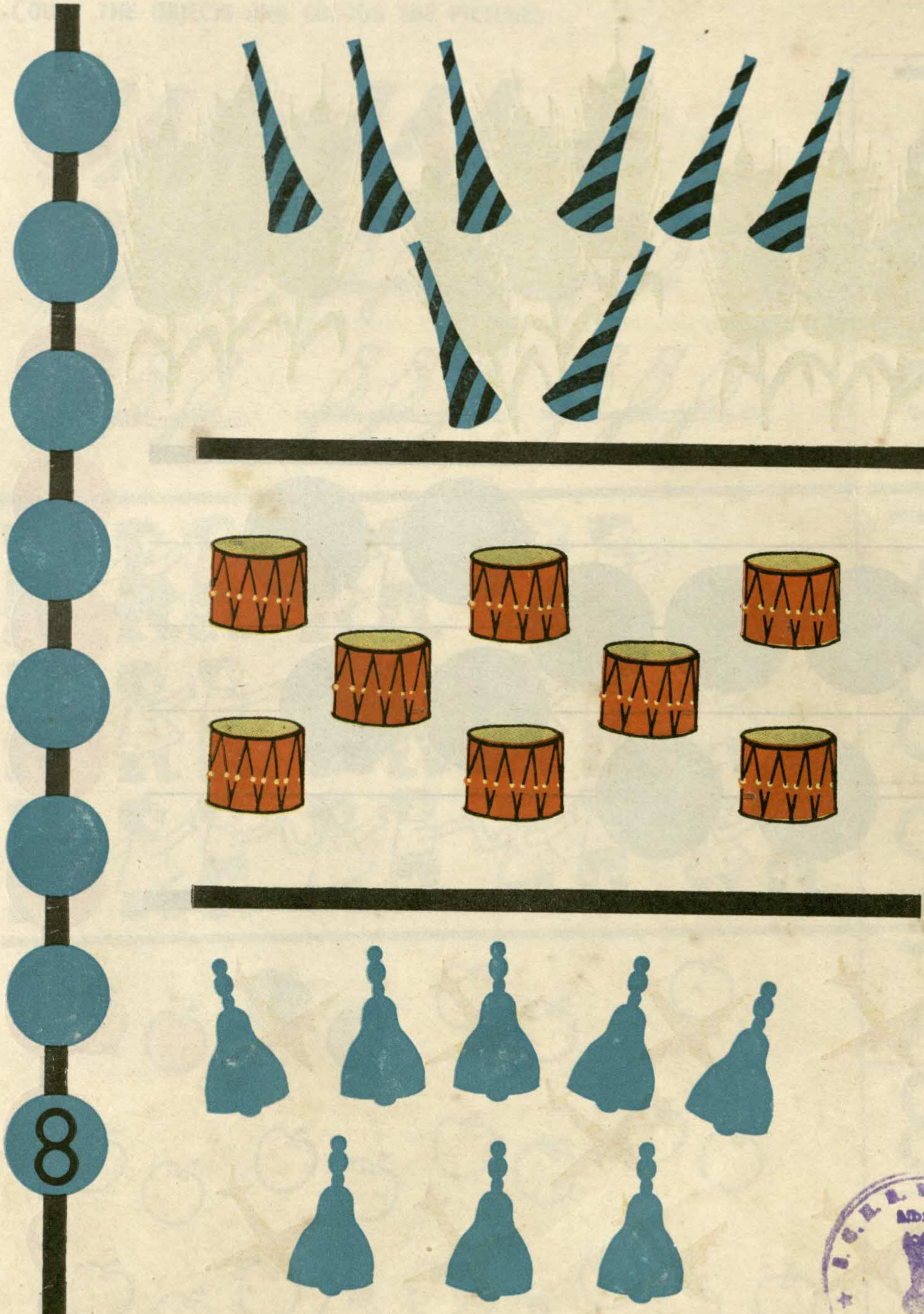
COUNT THE OBJECTS AND COLOUR THE PICTURES

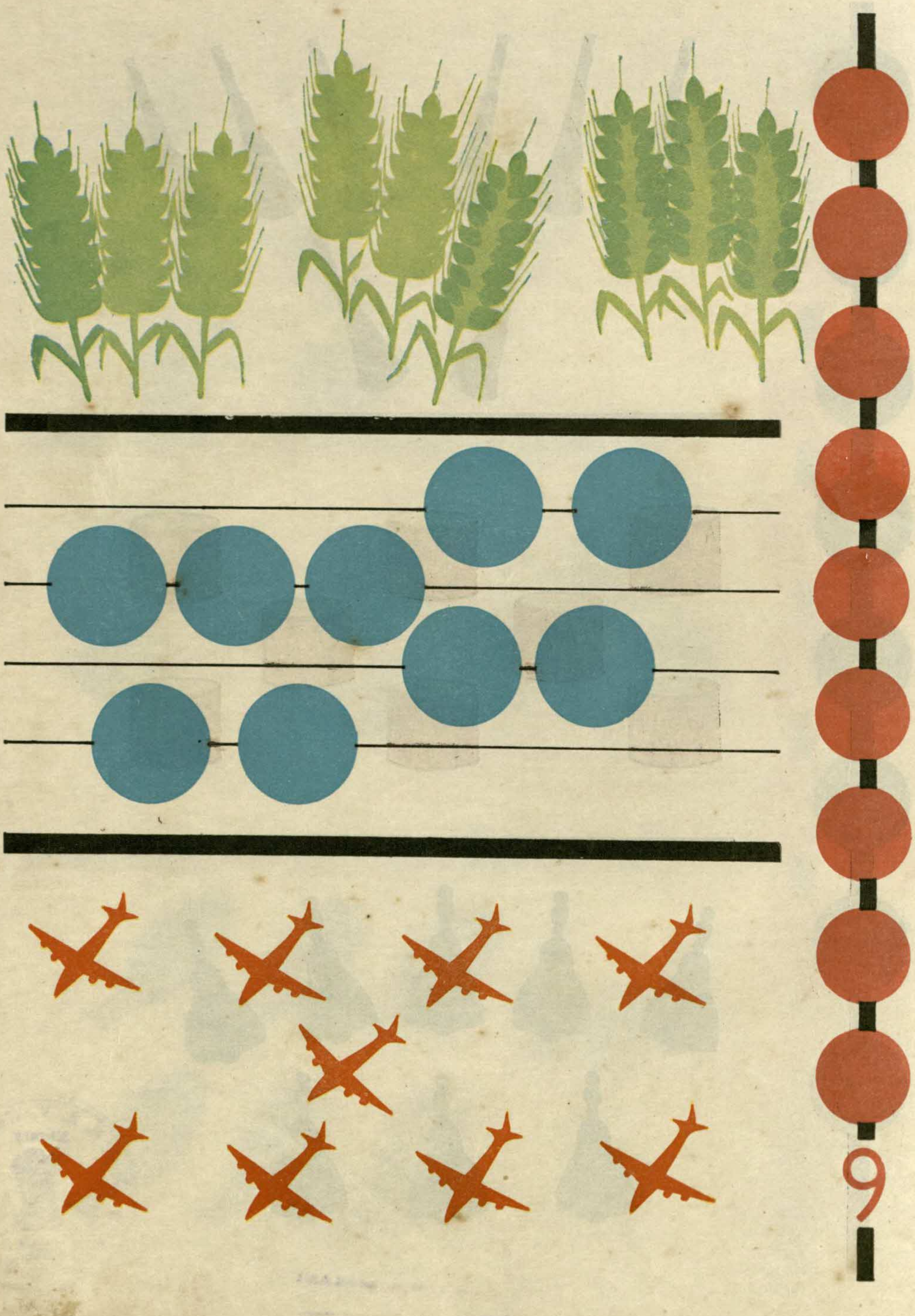


DRAW A RING AROUND THE NUMBER THAT TELLS THE NUMBER OF OBJECTS IN EACH PICTURE

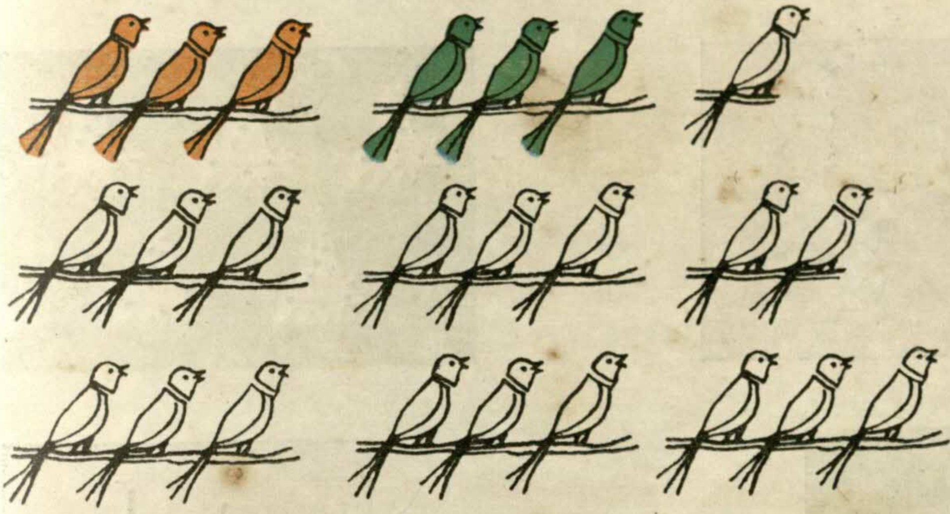
1 2 3			4 3 6
2 3 4			6 2 4
4 5 6			1 5 3


7


8


9

COUNT THE OBJECTS AND COLOUR THE PICTURES



7

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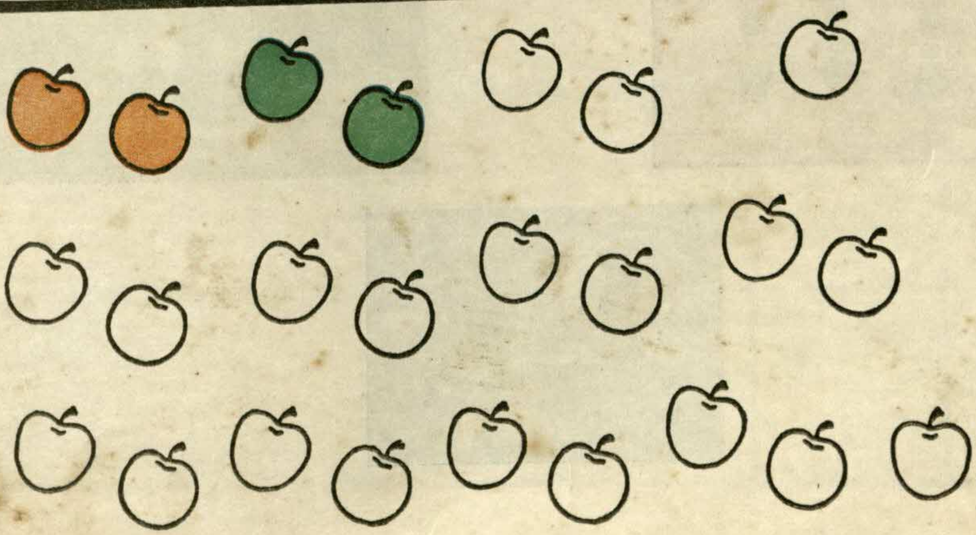
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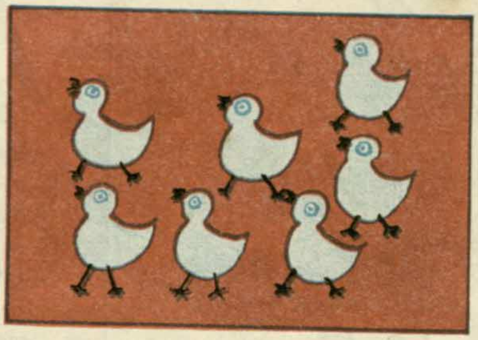


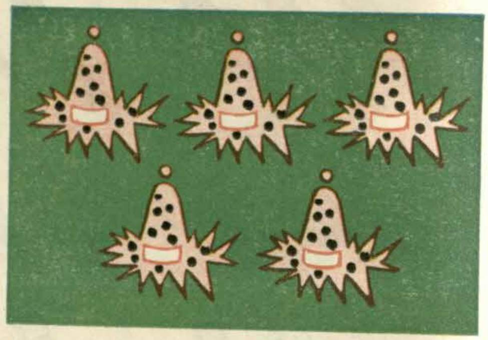
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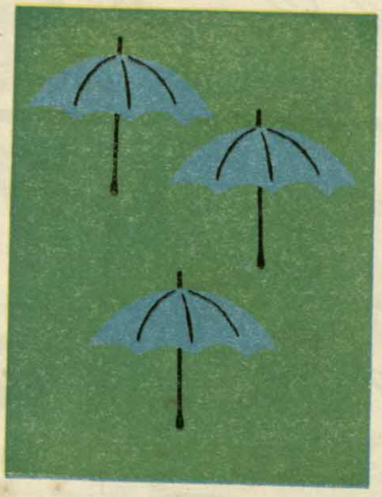
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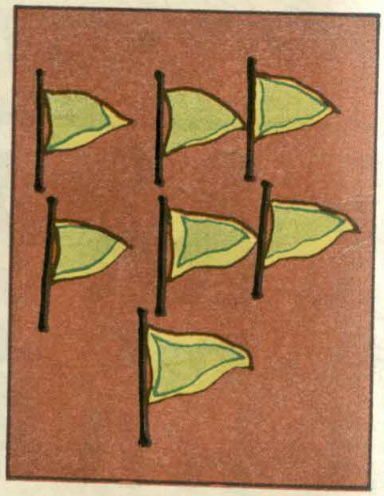
DRAW A LINE FROM 7 TO EACH PICTURE THAT SHOWS SEVEN OBJECTS

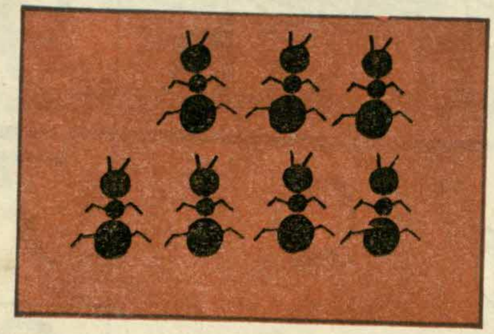


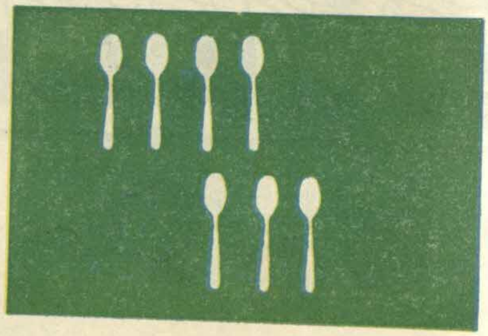


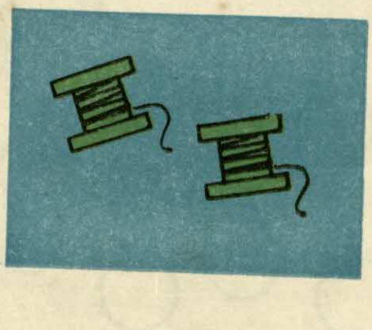


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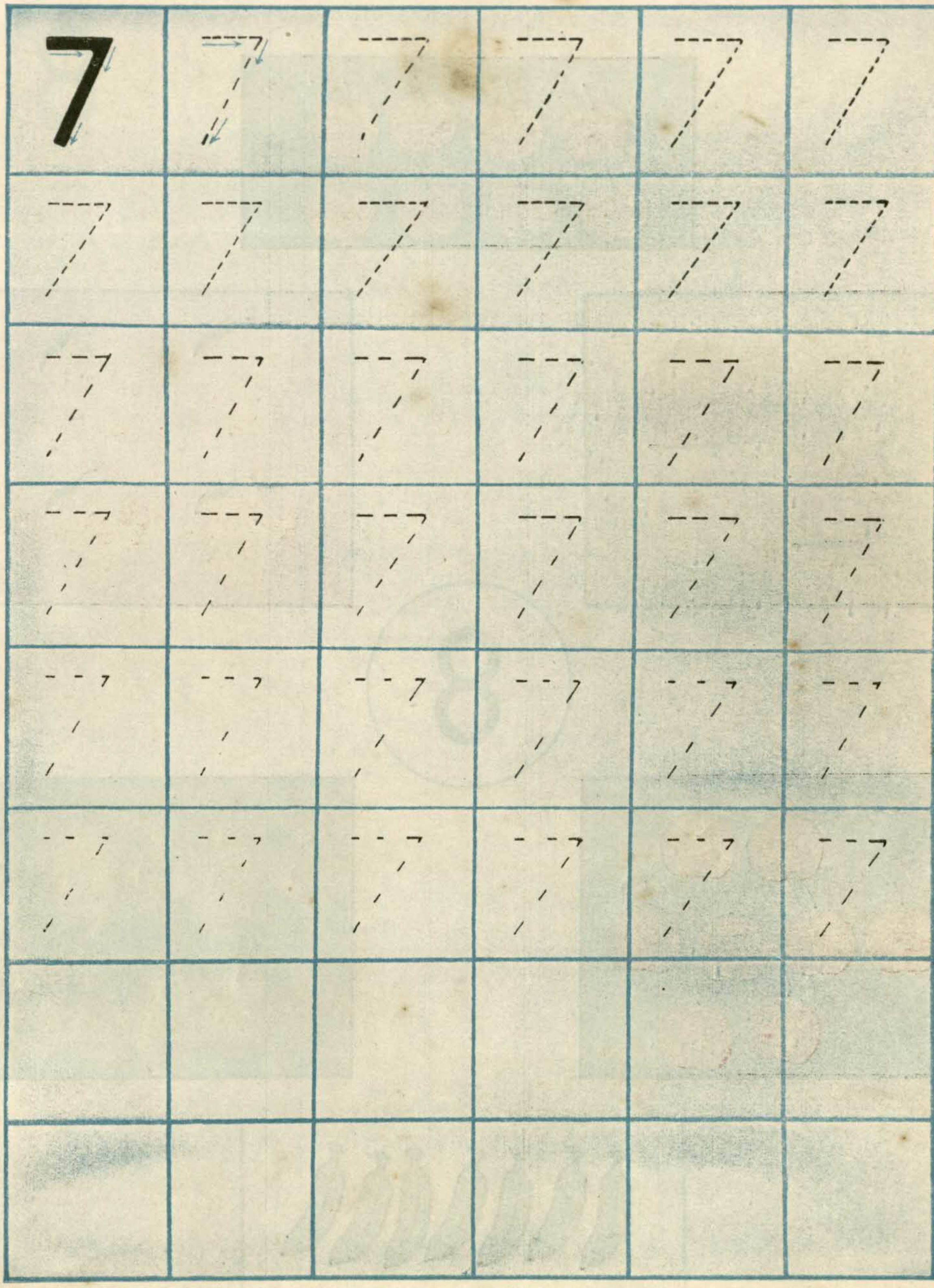




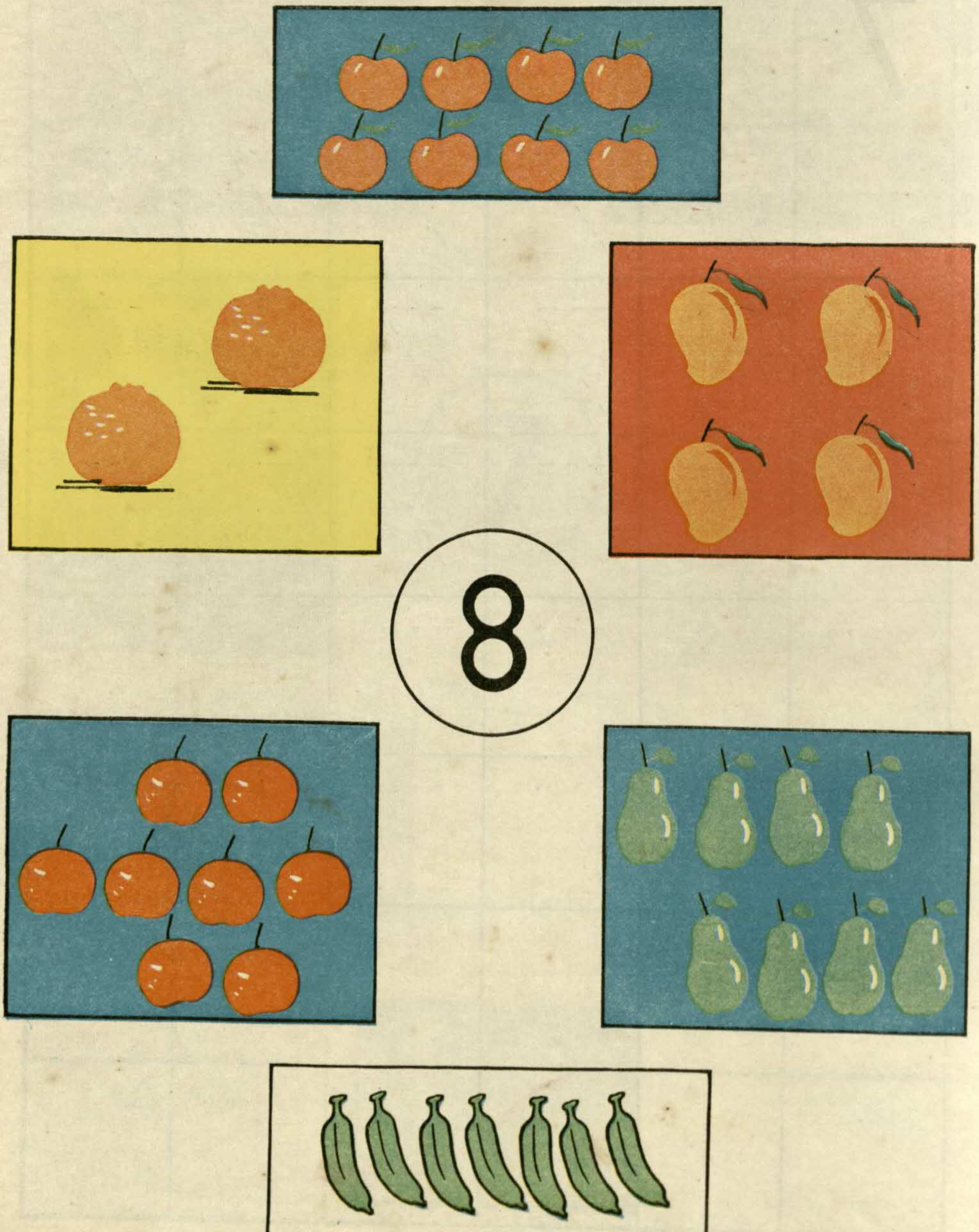




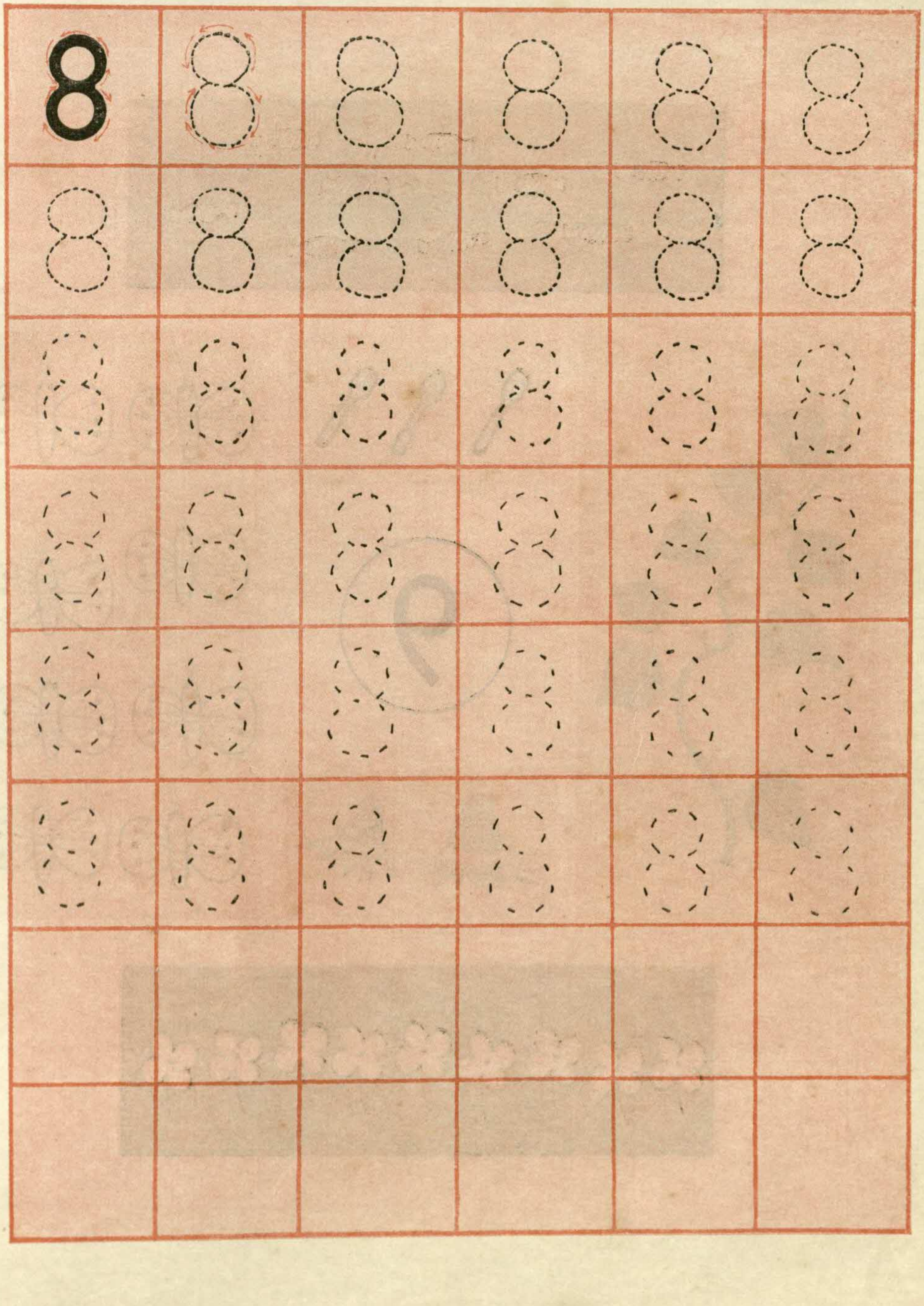
TRACE THE NUMBER 7 AND WRITE IT IN EACH OF THE EMPTY SPACES



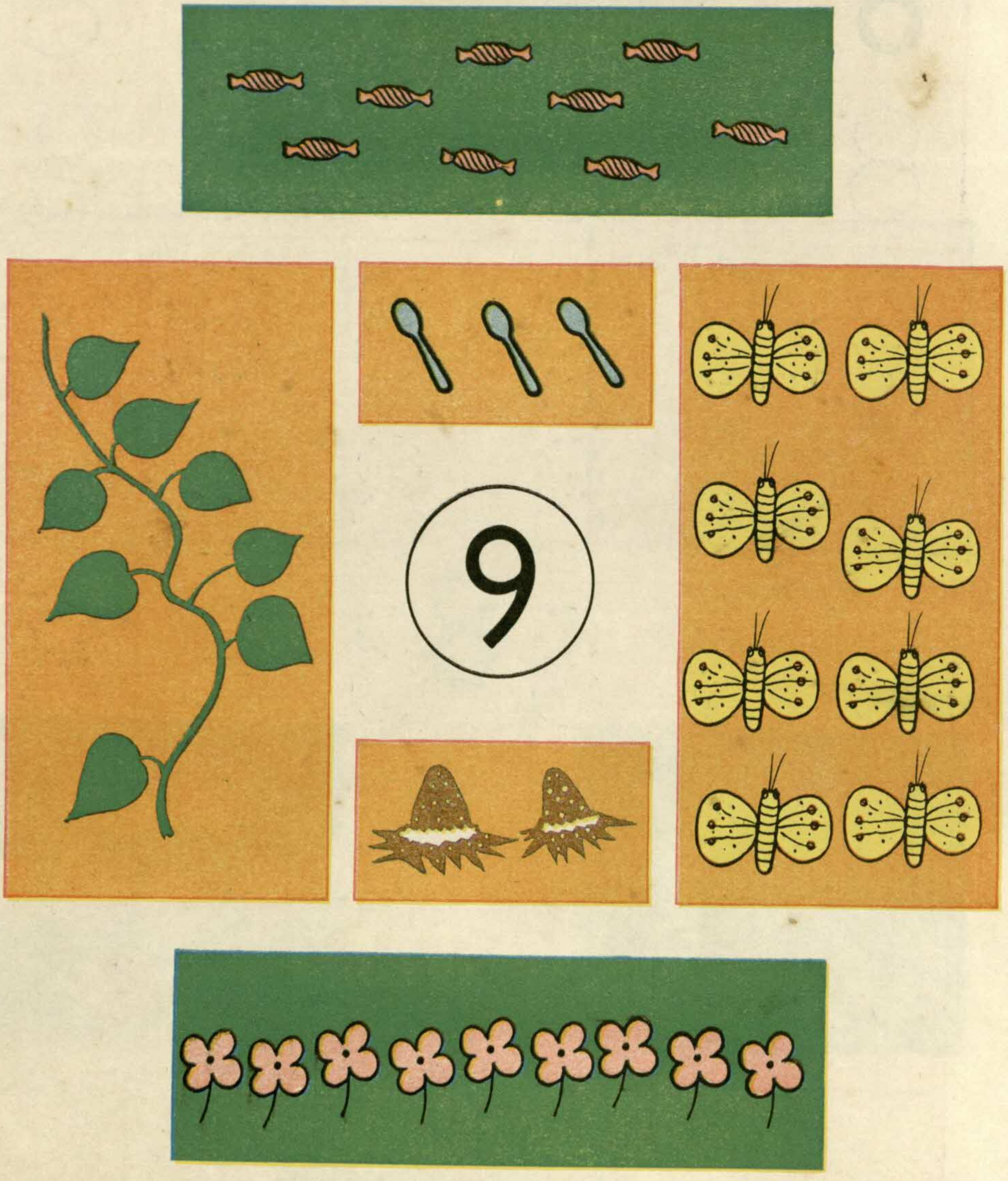
DRAW A LINE FROM 8 TO EACH PICTURE THAT SHOWS EIGHT OBJECTS



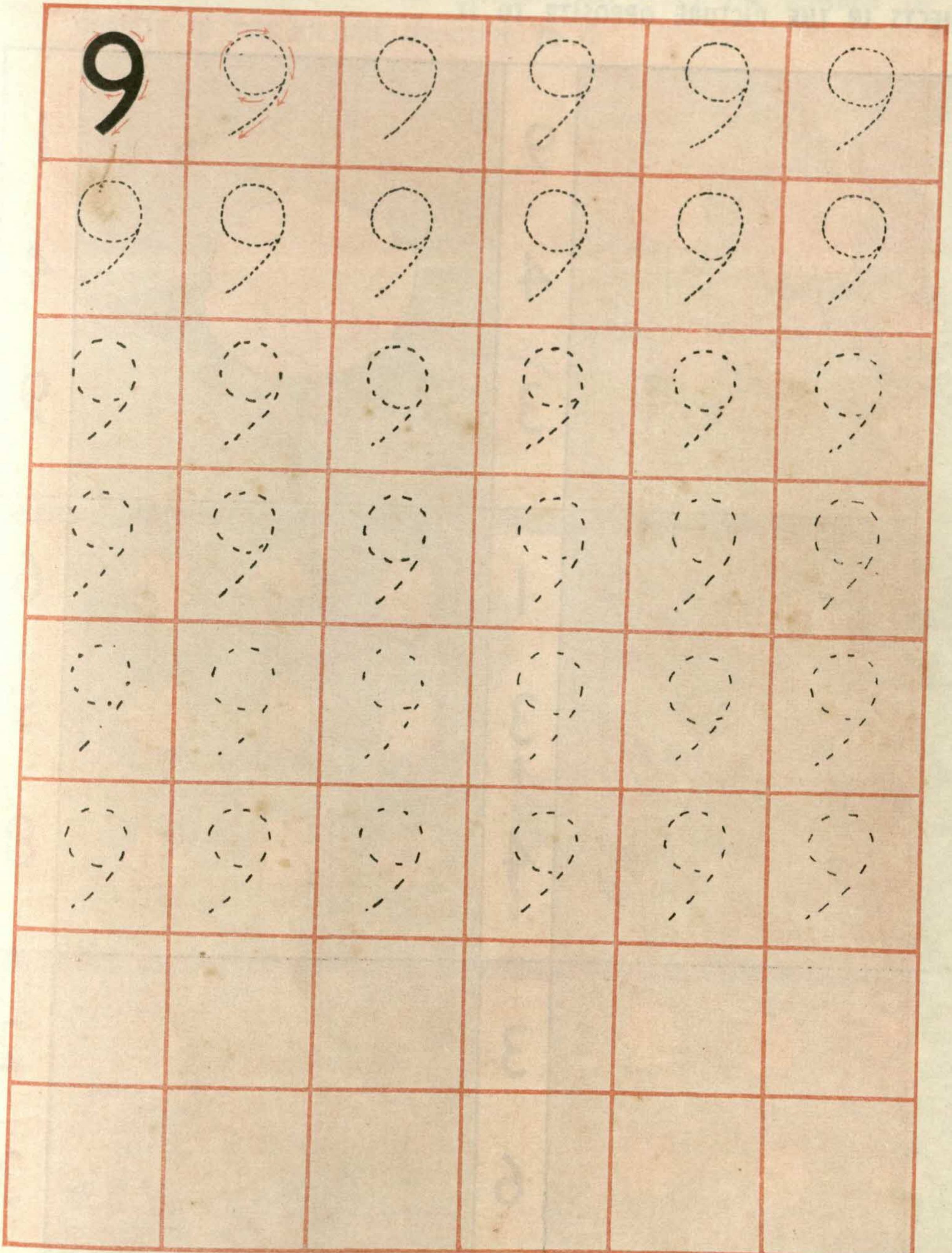
TRACE THE NUMBER 8 AND WRITE IT IN EACH OF THE EMPTY SPACES



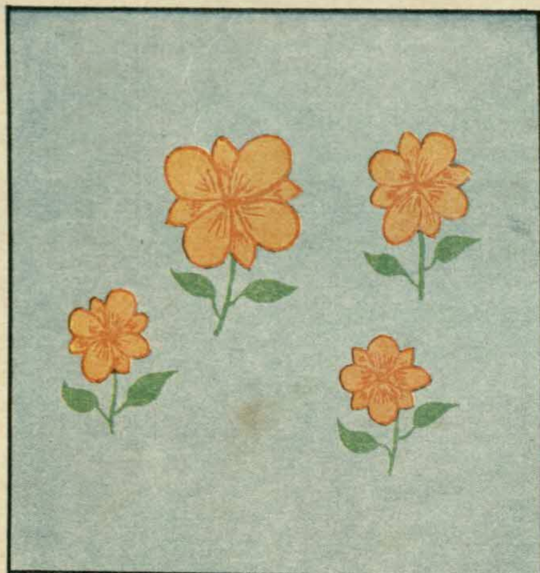
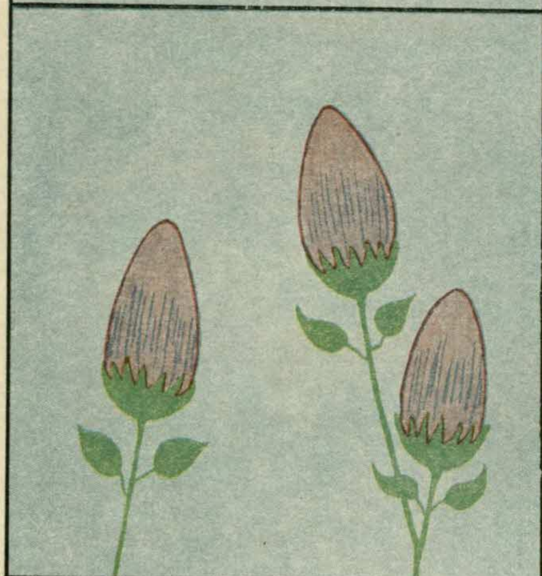
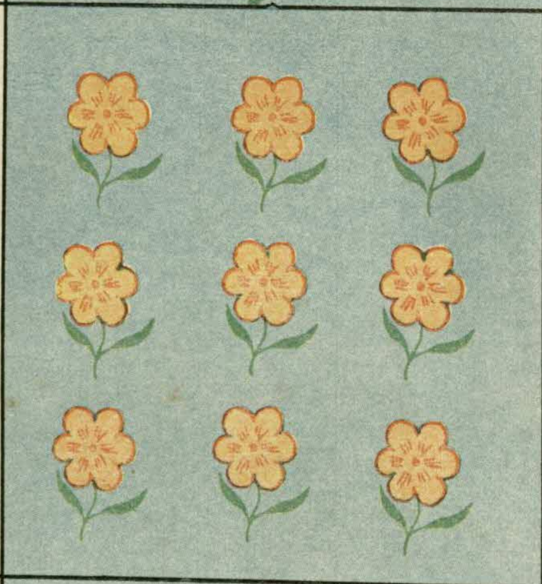
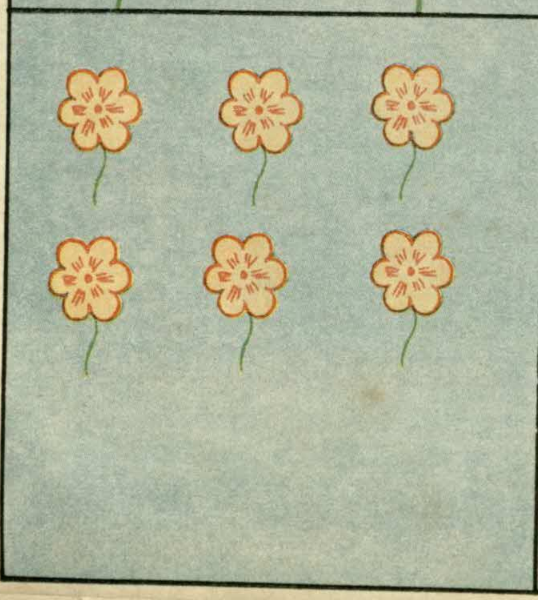
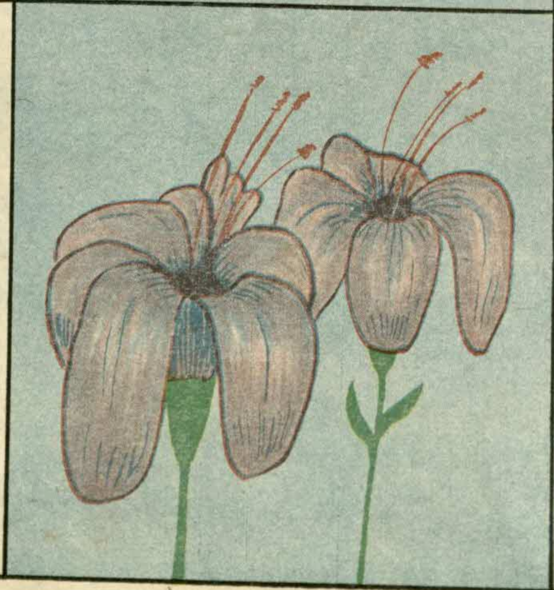
DRAW A LINE FROM 9 TO EACH PICTURE THAT SHOWS NINE OBJECTS



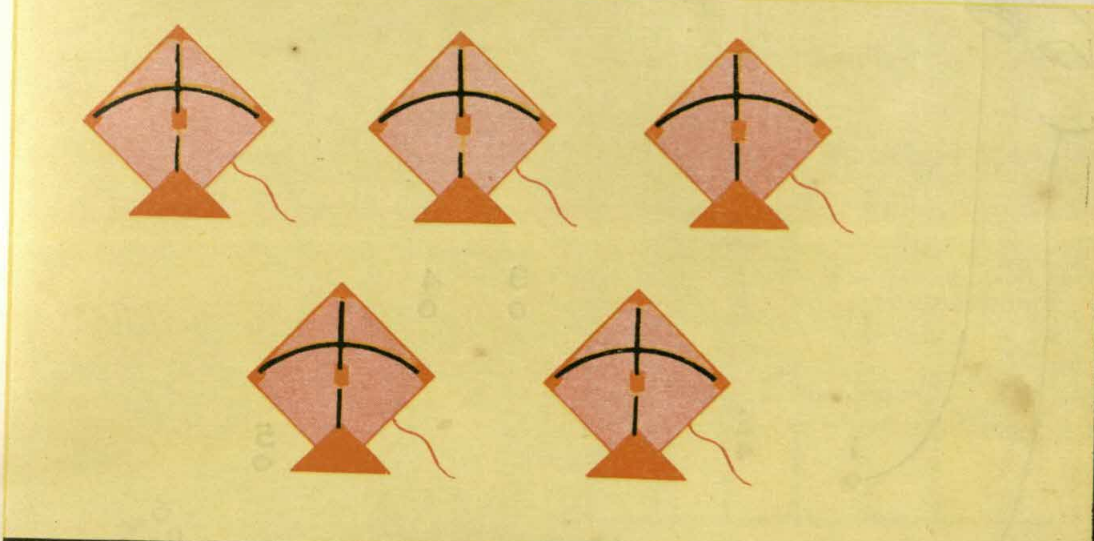
TRACE THE NUMBER 9 AND WRITE IT IN EACH OF THE EMPTY SPACES



DRAW A RING ROUND THE NUMBER THAT TELLS THE NUMBER OF OBJECTS IN THE PICTURE OPPOSITE TO IT

	9 4 3		1 4 9
	1 3 4		6 9 8
	3 6 8		2 3 5

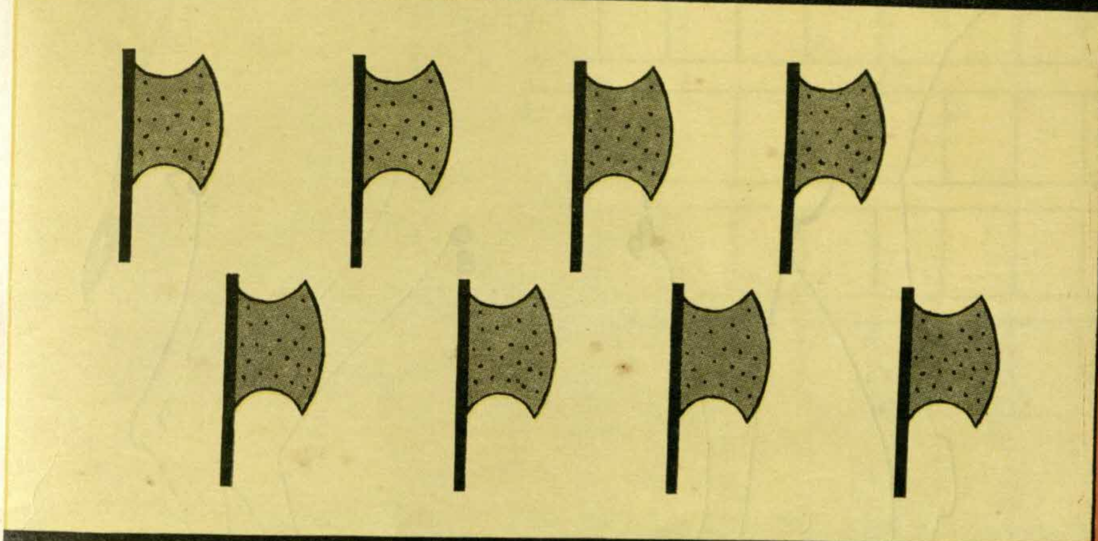
DRAW A RING ROUND THE NUMBER THAT TELLS THE NUMBER OF OBJECTS IN THE PICTURE OPPOSITE TO IT



6

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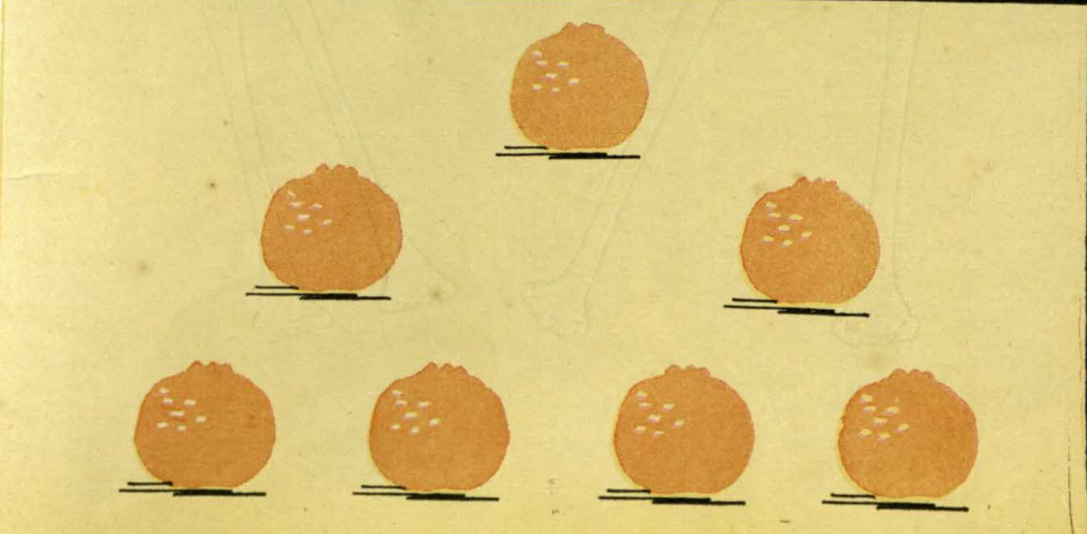
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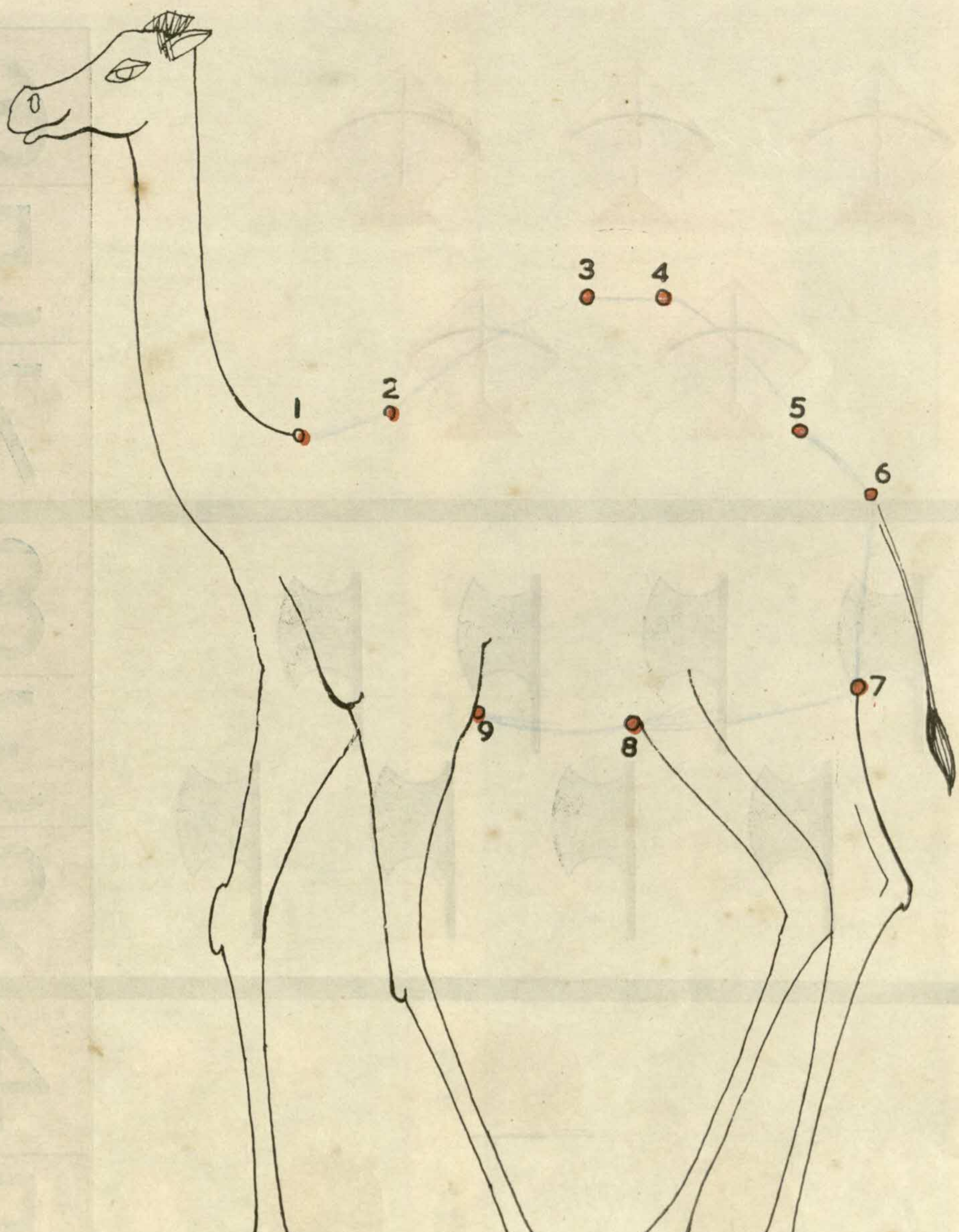


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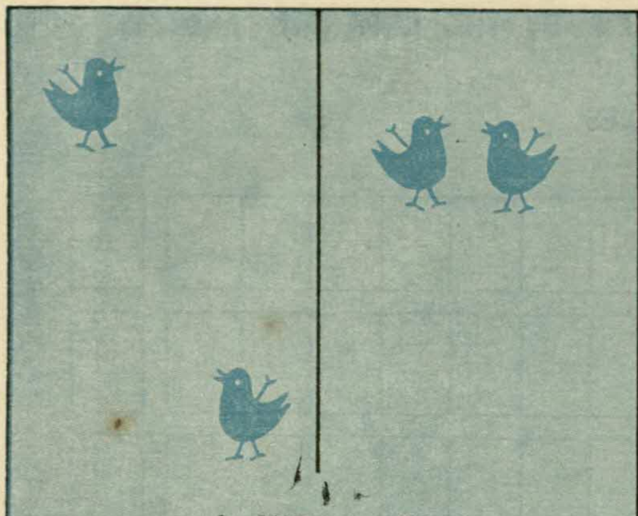
DRAW LINES JOINING 1 TO 9 IN ORDER



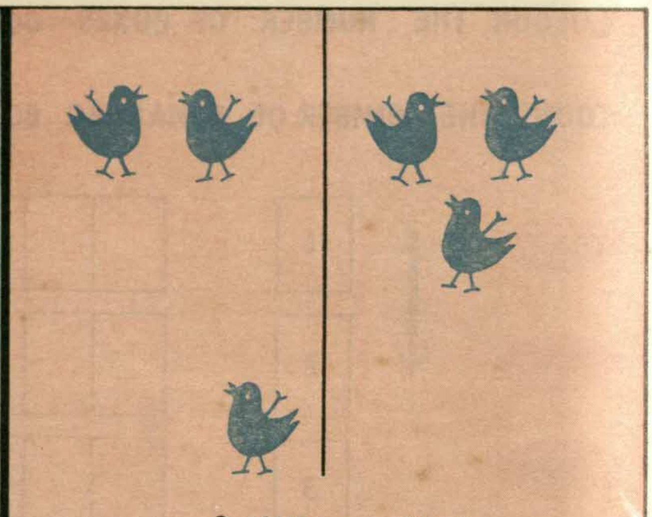
COLOUR THE NUMBER OF BOXES GIVEN BY THE NUMERALS AND COUNT THE NUMBER OF REMAINING BOXES

ONE	1										8
TWO	2										
THREE	3										
FOUR	4										
FIVE	5										4
SIX	6										
SEVEN	7										
EIGHT	8										
NINE	9										

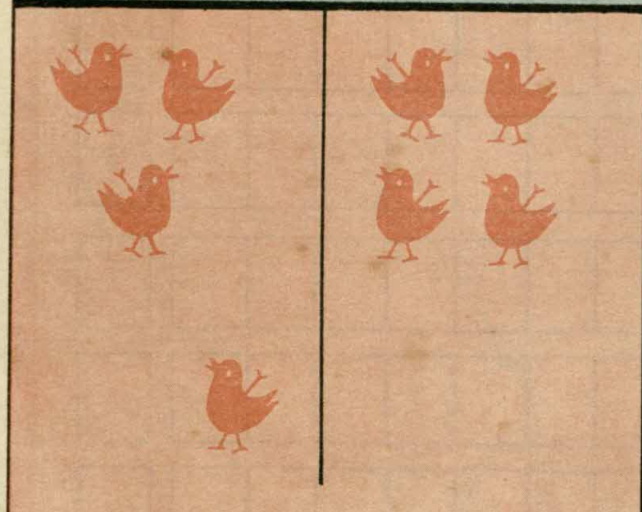
ONE TWO THREE FOUR
FIVE SIX SEVEN EIGHT
NINE



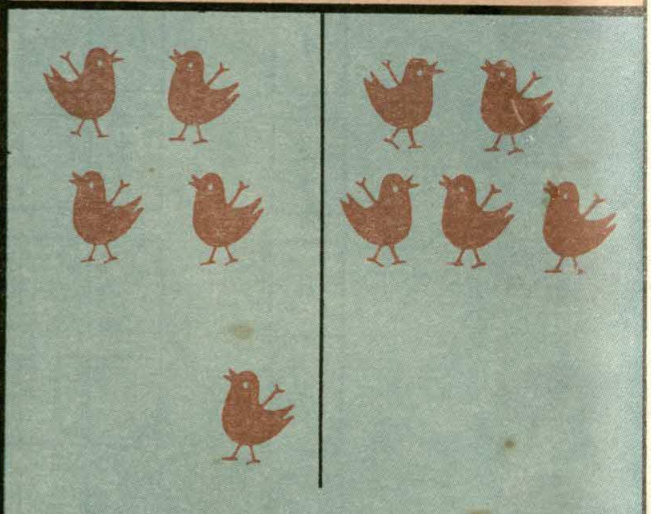
1 AND 1 ARE 2



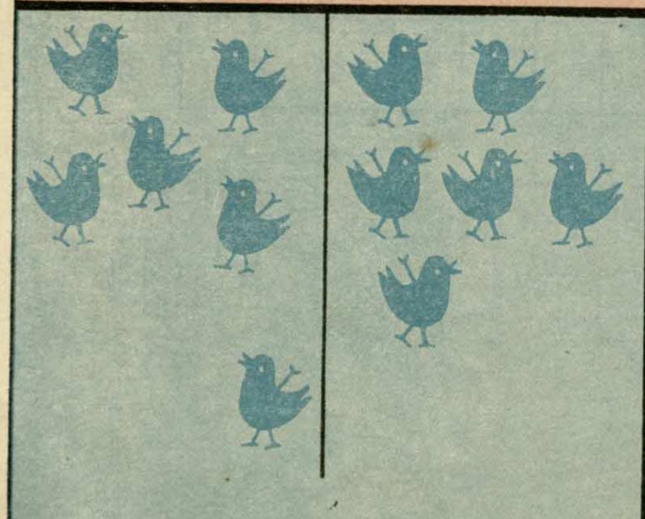
2 AND 1 ARE 3



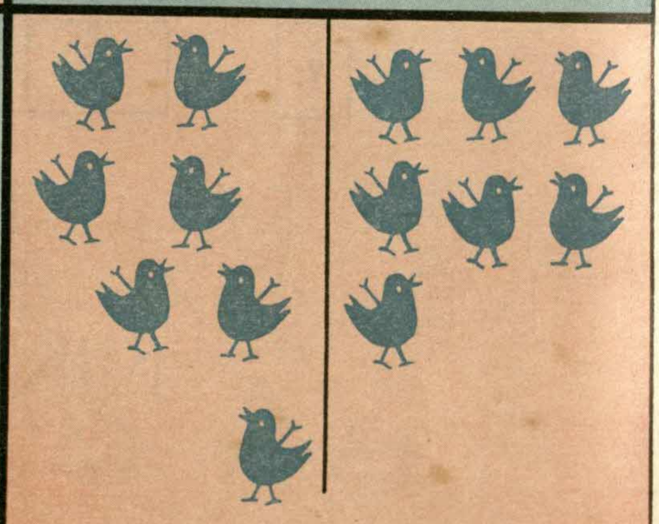
3 AND 1 ARE 4



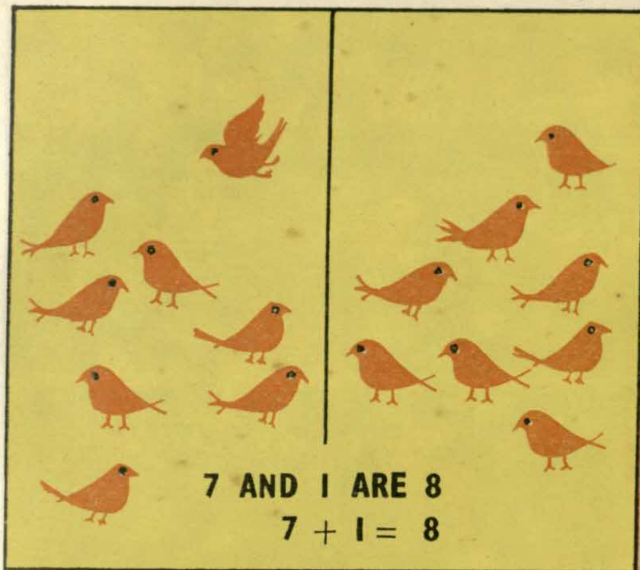
4 AND 1 ARE 5



5 AND 1 ARE 6

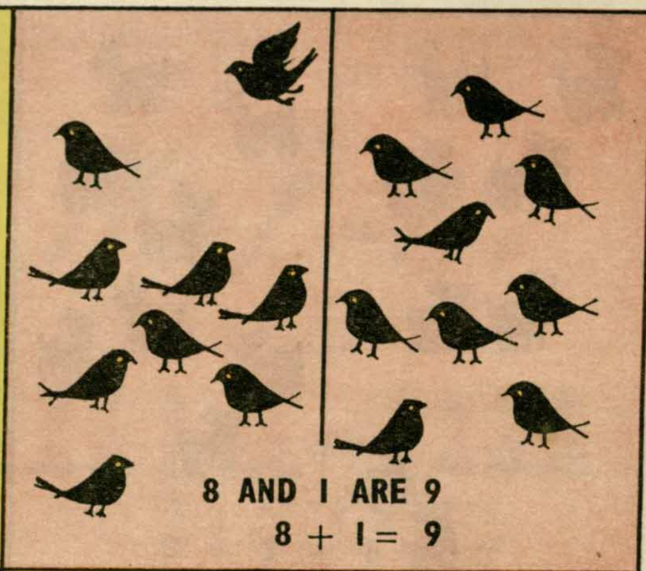


6 AND 1 ARE 7



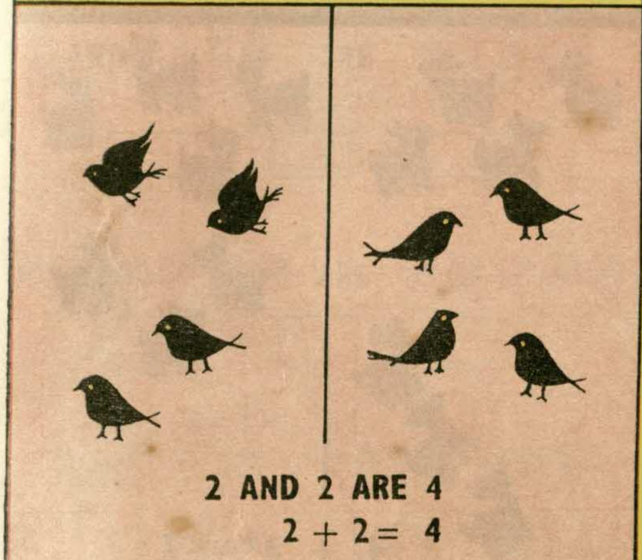
7 AND 1 ARE 8

7 + 1 = 8



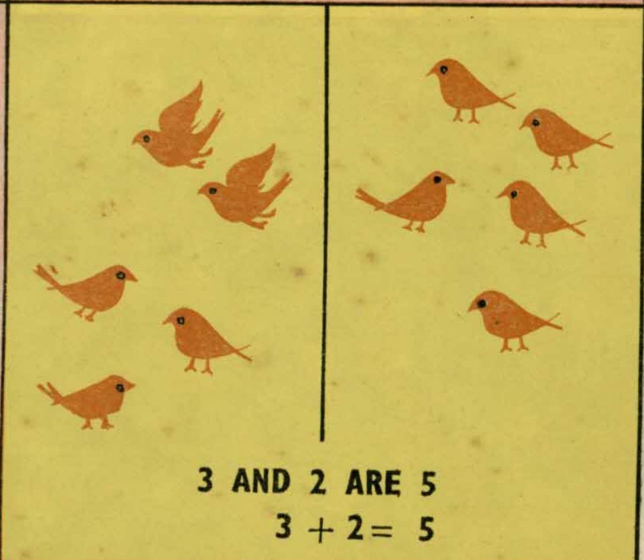
8 AND 1 ARE 9

8 + 1 = 9



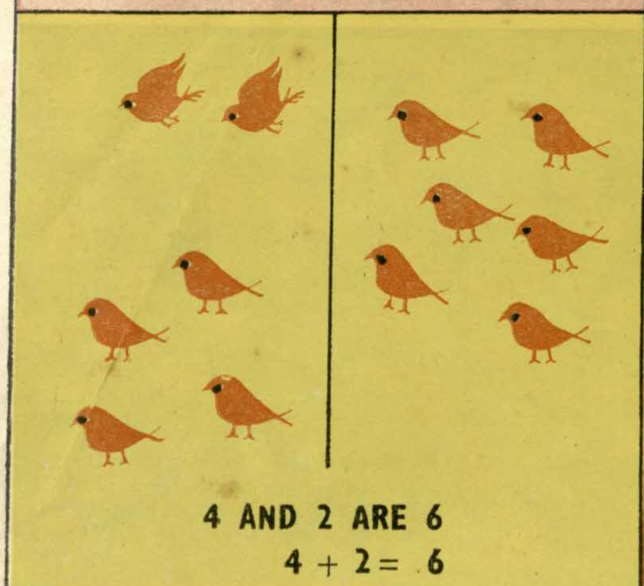
2 AND 2 ARE 4

2 + 2 = 4



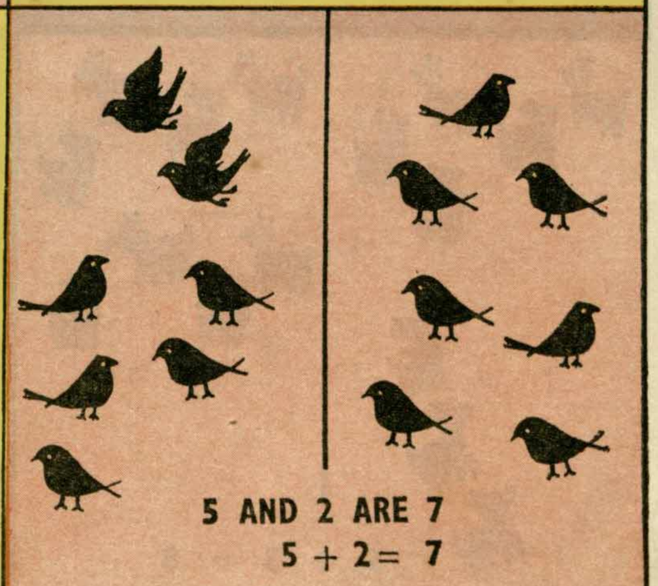
3 AND 2 ARE 5

3 + 2 = 5



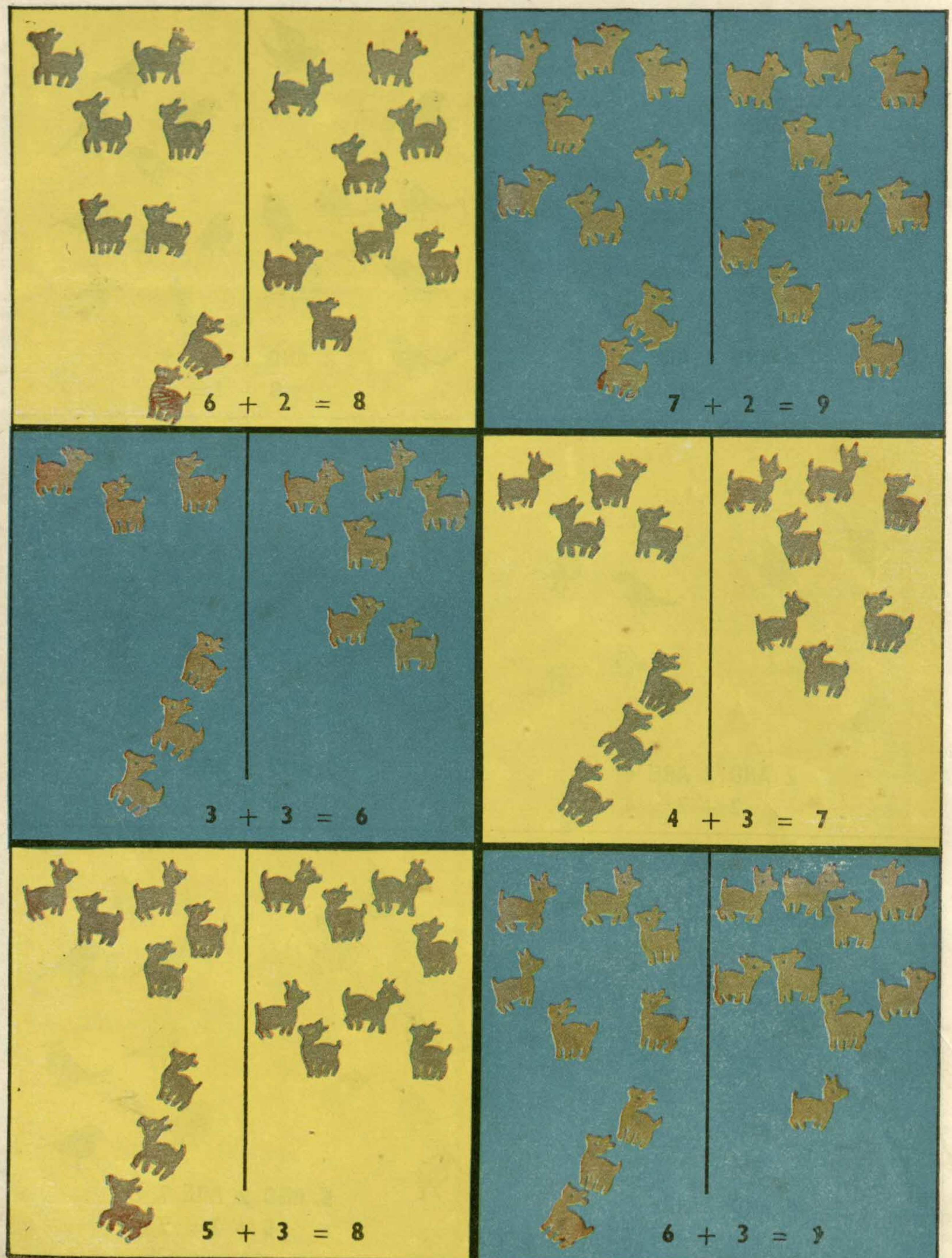
4 AND 2 ARE 6

4 + 2 = 6



5 AND 2 ARE 7

5 + 2 = 7


6 + 2 = 8
7 + 2 = 9
3 + 3 = 6
4 + 3 = 7
5 + 3 = 8
6 + 3 = 9



1 + 1 = 2



[ ] + [ ] = [ ]



[ ] + [ ] = [ ]



[ ] + [ ] = [ ]



[ ] + [ ] = [ ]

2 = 1 + [ ]

5 = 4 + [ ]

5 = 3 + [ ]

5 = 2 + [ ]

5 = 1 + [ ]



2 + 2 = 4



[ ] + [ ] = [ ]



[ ] + [ ] = [ ]



[ ] + [ ] = [ ]



[ ] + [ ] = [ ]

3 = [ ] + 1

3 = [ ] + 2

4 = [ ] + 3

4 = [ ] + 2

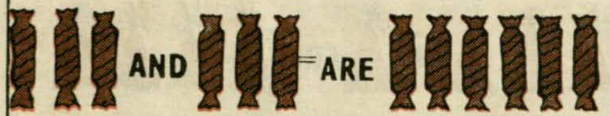
4 = [ ] + 1



1 + 5 = 6



□ + □ = □



□ + □ = □



□ + □ = □



□ + □ = □



□ + □ = □

7 = 6 + □

7 = 5 + □



□ + □ = □



□ + □ = □

6 = 5 + □

6 = 4 + □

6 = 3 + □



□ + □ = □



□ + □ = □



□ + □ = □

7 = 4 + □

7 = 3 + □

AND =

1 + 7 = 8

AND =

___ + ___ = ___

AND =

___ + ___ = ___

AND =

___ + ___ = ___

AND =

1 + 8 = 9

AND =

___ + ___ = ___

AND =

___ + ___ = ___

AND =

___ + ___ = ___

9 = 8 + ___

9 = 7 + ___

AND =

___ + ___ = ___

AND =

___ + ___ = ___

AND =

___ + ___ = ___

8 = 7 + ___

8 = 6 + ___

8 = 5 + ___

8 = 4 + ___

AND =

___ + ___ = ___

AND =

___ + ___ = ___

AND =

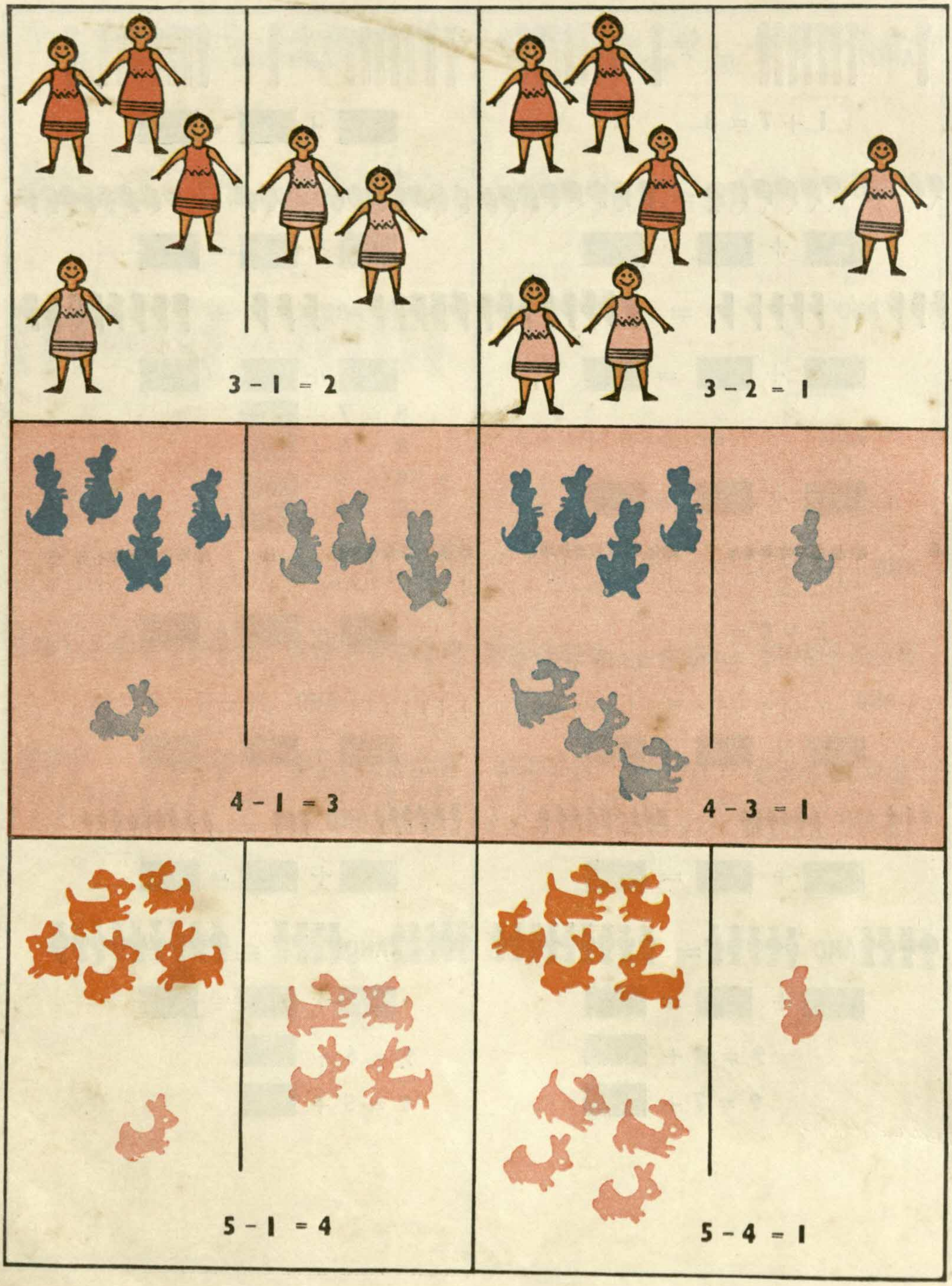
___ + ___ = ___

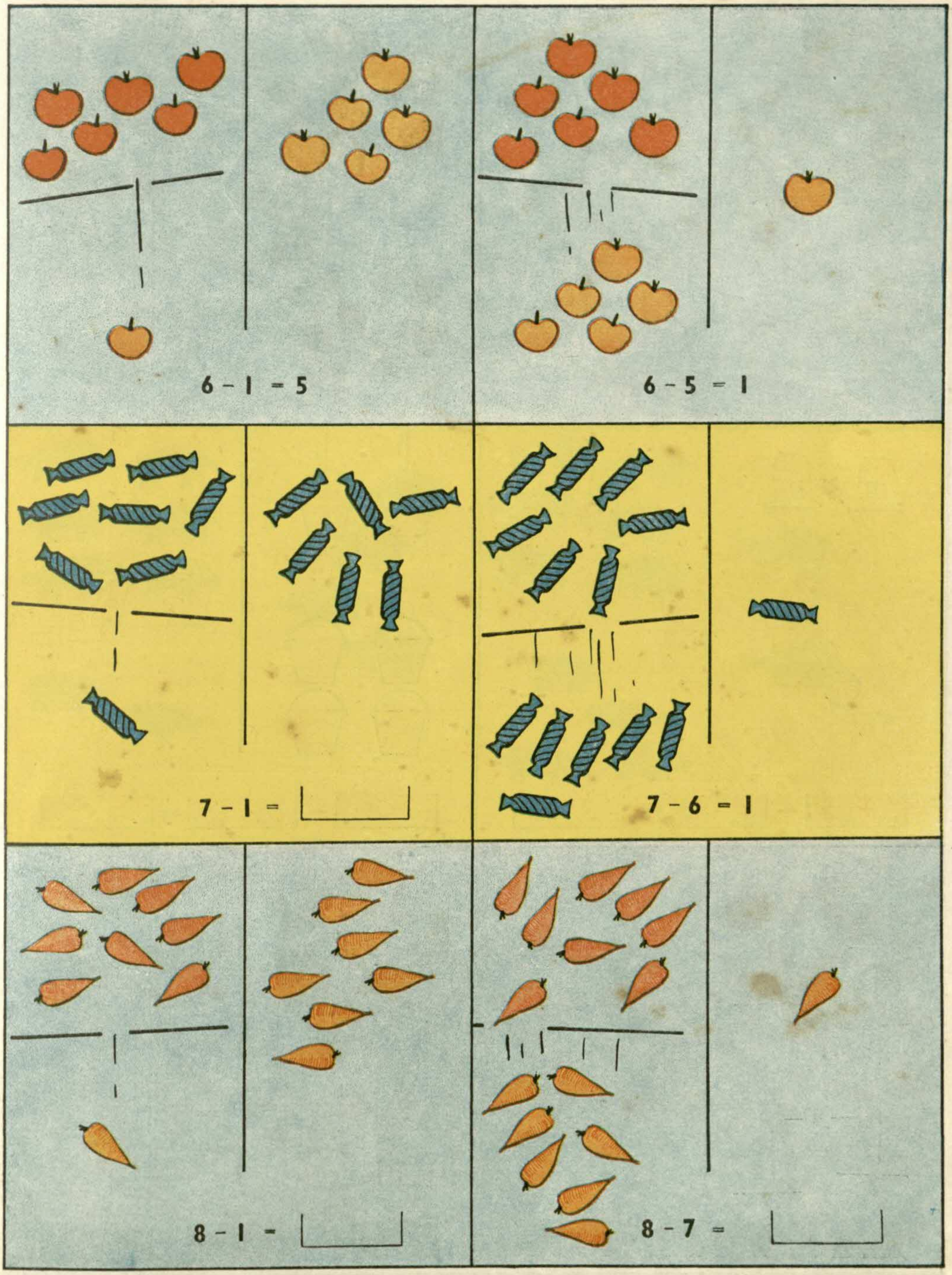
AND =

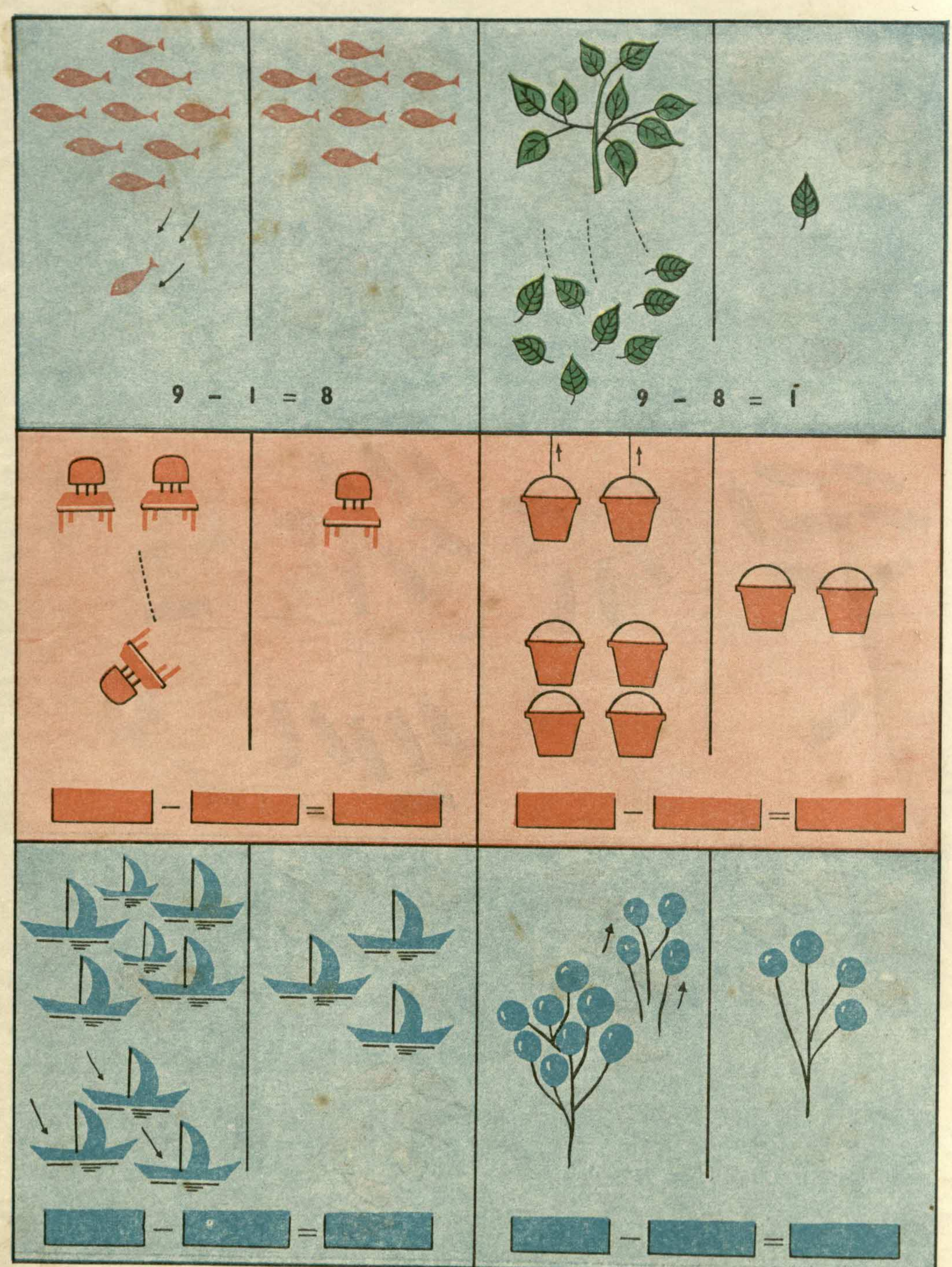
___ + ___ = ___

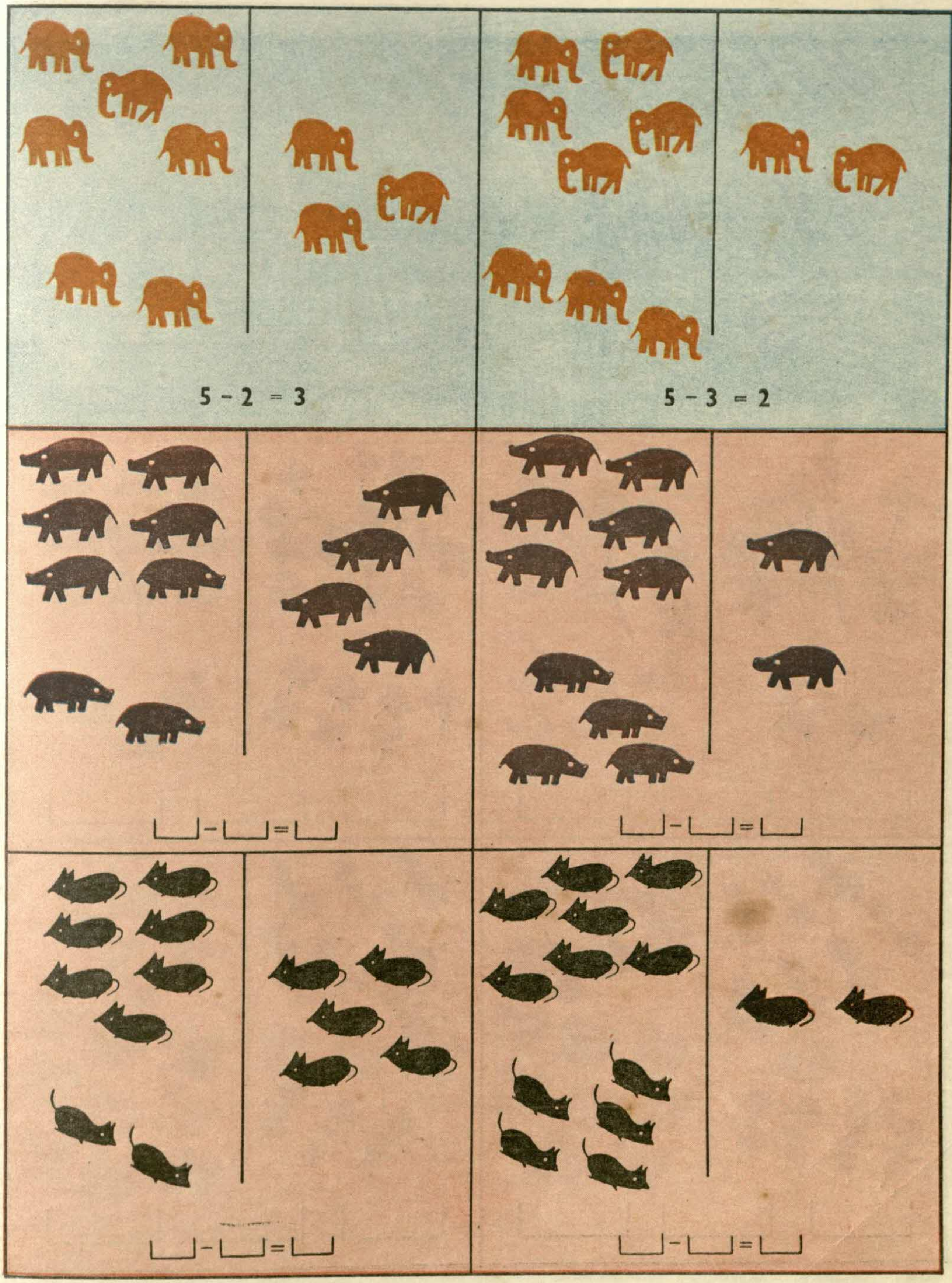
9 = 6 + ___

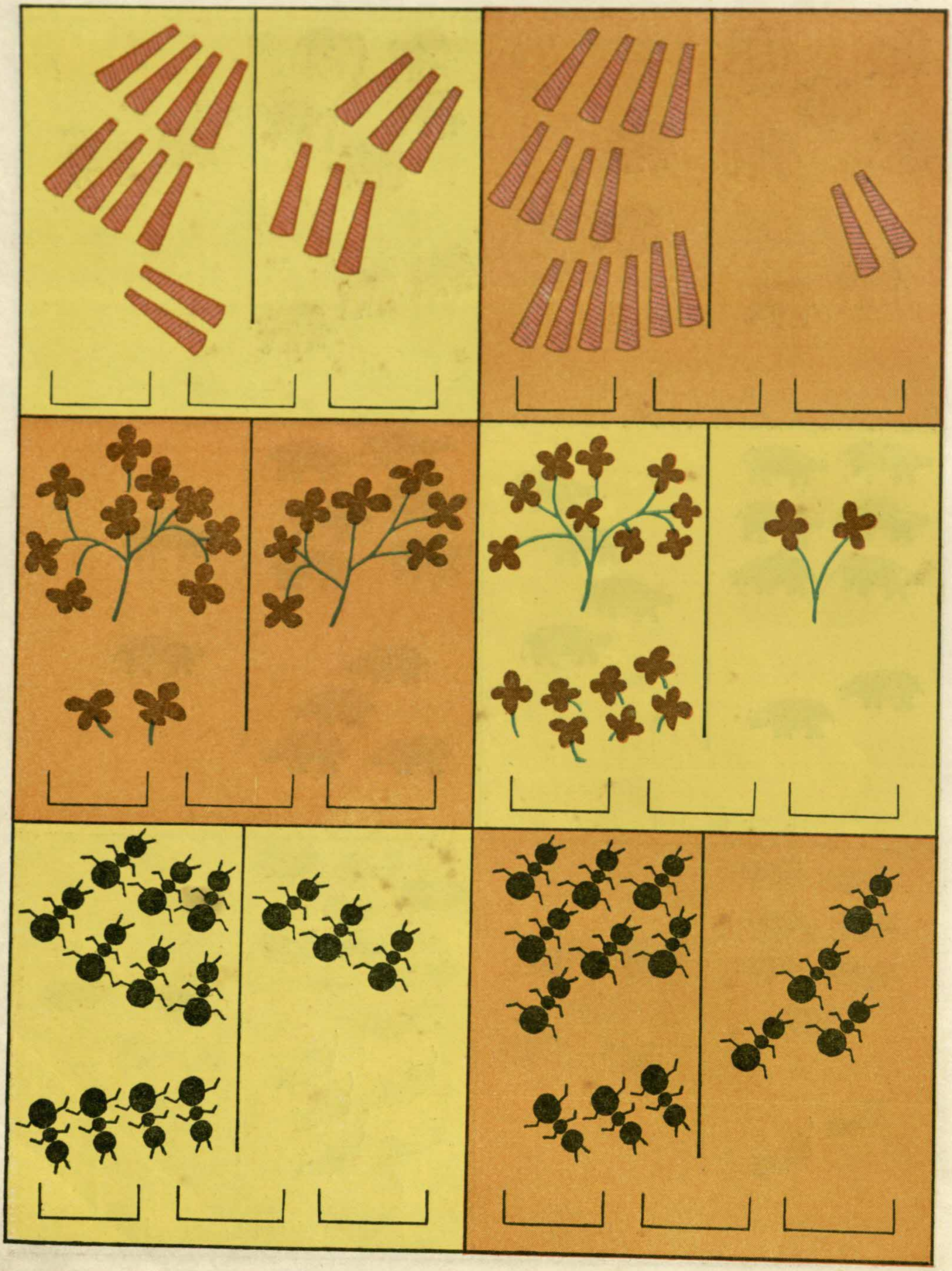
9 = 5 + ___

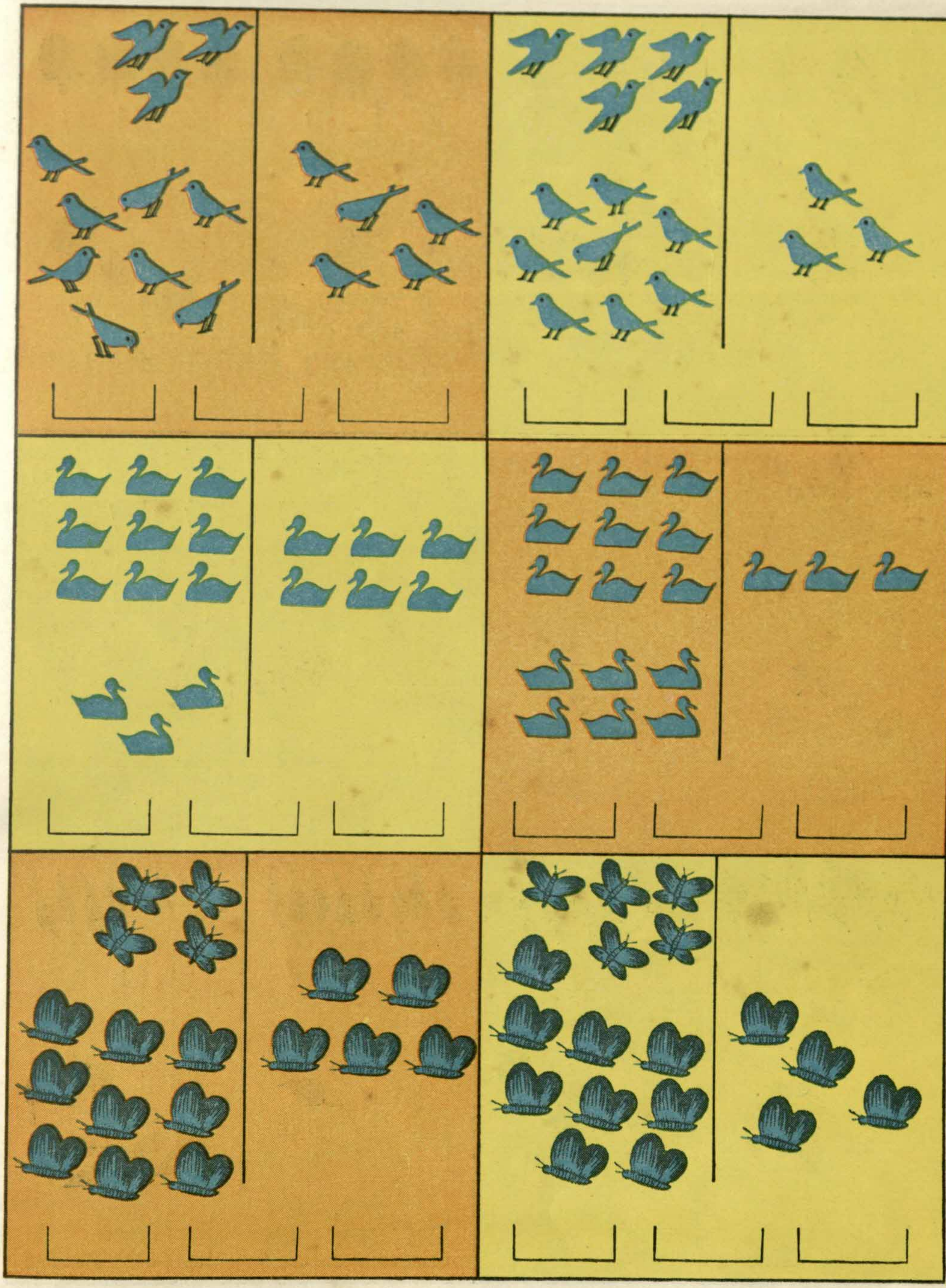

3 – 1 = 2
3 – 2 = 1
4 – 1 = 3
4 – 3 = 1
5 – 1 = 4
5 – 4 = 1

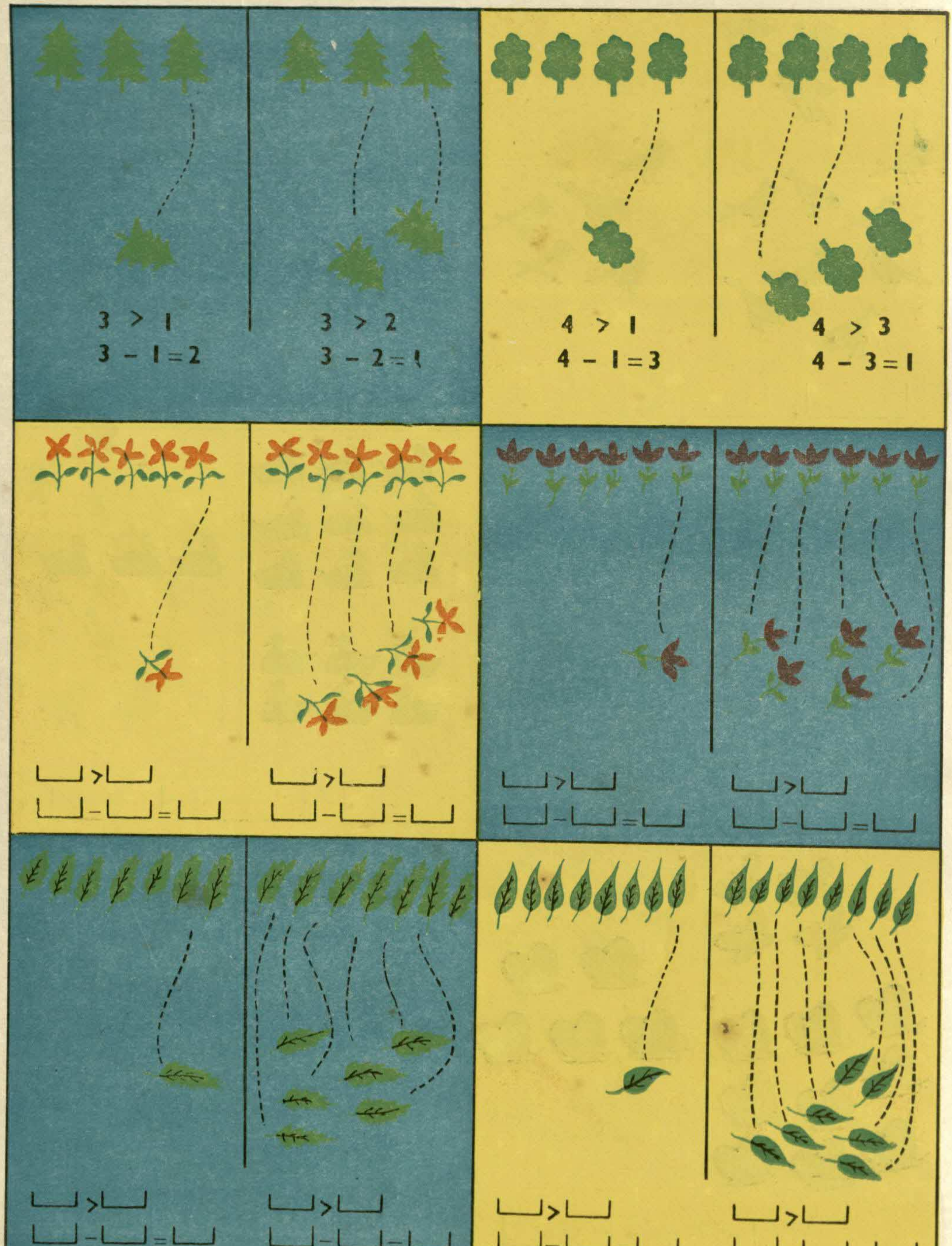

6 − 1 = 5
6 − 5 = 1
7 − 1 =
7 − 6 = 1
8 − 1 =
8 − 7 =

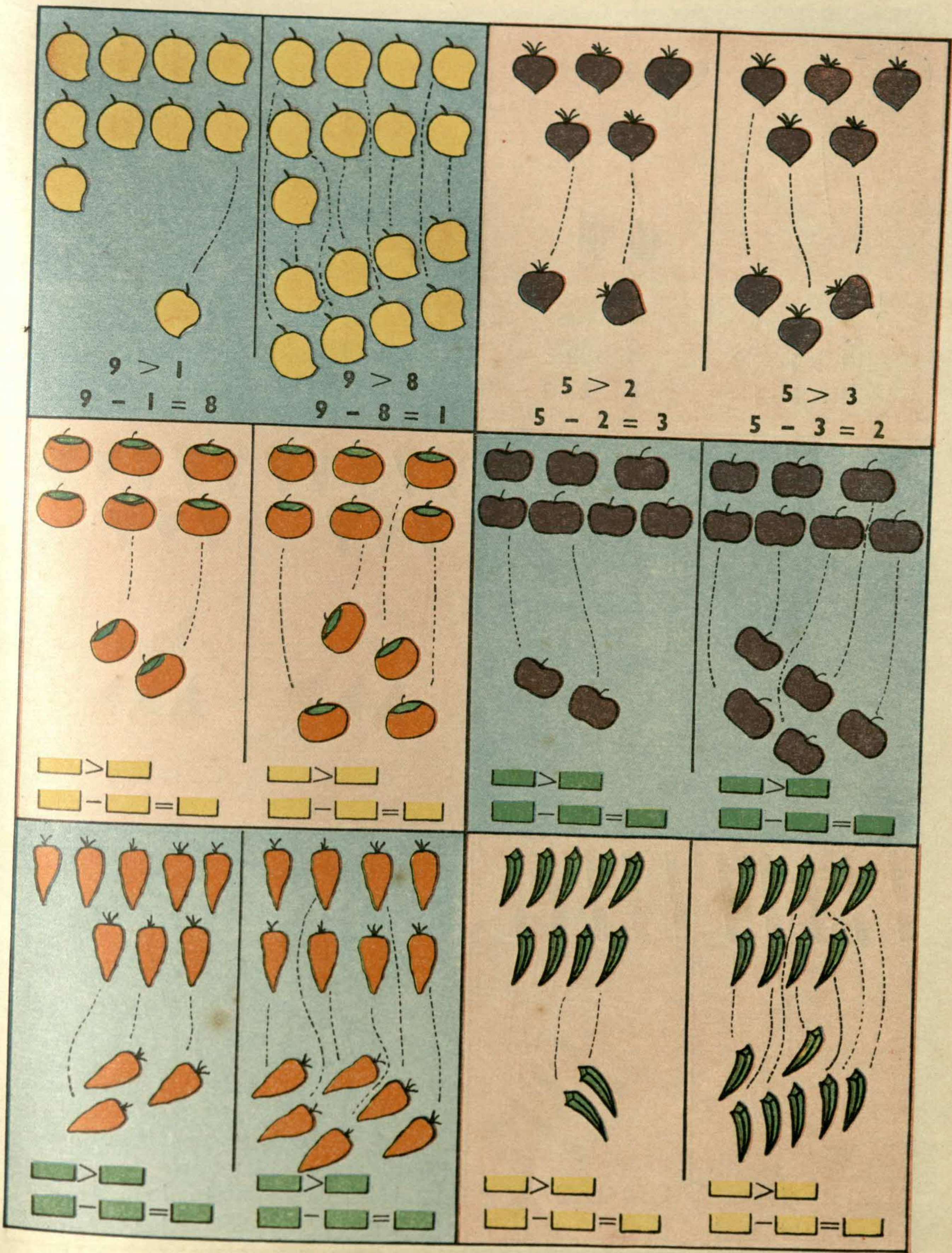

9 − 1 = 8
9 − 8 = 1
−
=
−
=
−
=
−
=

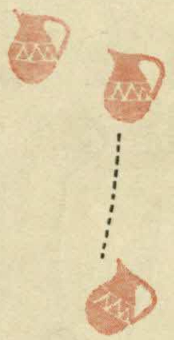

5 - 2 = 3
5 - 3 = 2





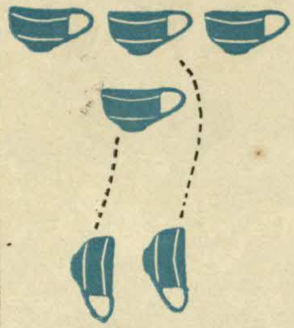

3 > 1
3 - 1 = 2
3 > 2
3 - 2 = 1
4 > 1
4 - 1 = 3
4 > 3
4 - 3 = 1


9 > 1
9 − 1 = 8
9 > 8
9 − 8 = 1
5 > 2
5 − 2 = 3
5 > 3
5 − 3 = 2



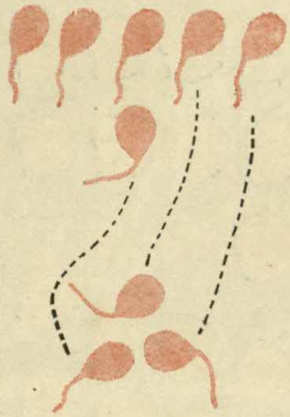
$2 > 1$

$2 - 1 = 1$



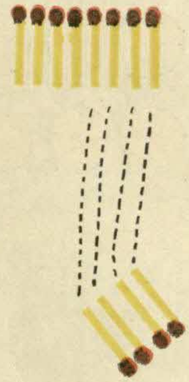
$4 > 2$

$4 - 2 = 2$



$6 > 3$

$6 - 3 = 3$



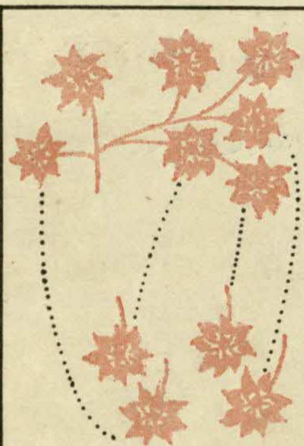
$8 > 4$

$8 - 4 = 4$



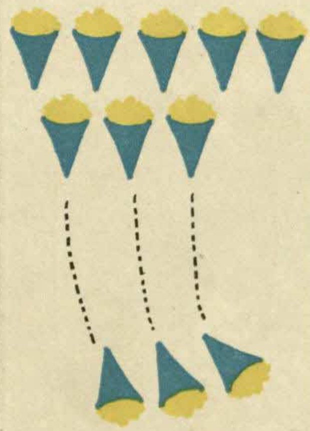
$\square > \square$

$\square - \square = \square$



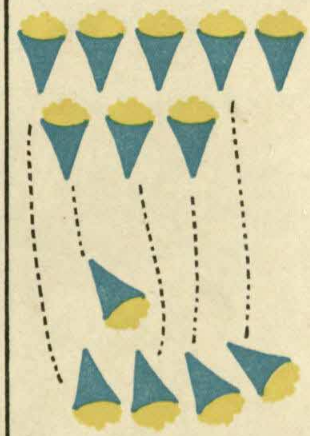
$\square > \square$

$\square - \square = \square$



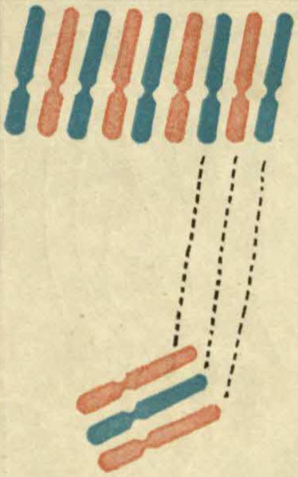
$\square > \square$

$\square - \square = \square$



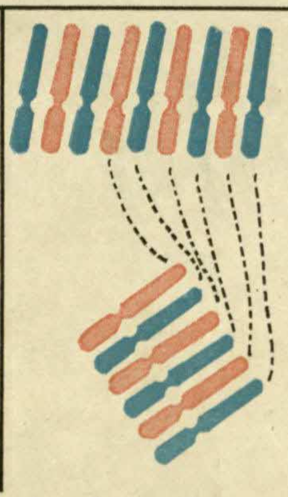
$\square > \square$

$\square - \square = \square$



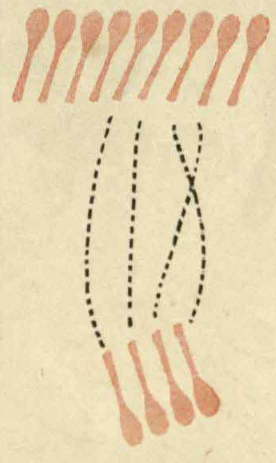
$\square > \square$

$\square - \square = \square$



$\square > \square$

$\square - \square = \square$



$\square > \square$

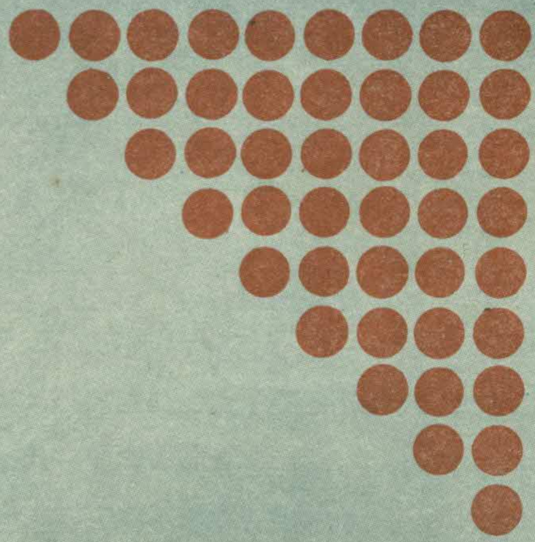
$\square - \square = \square$



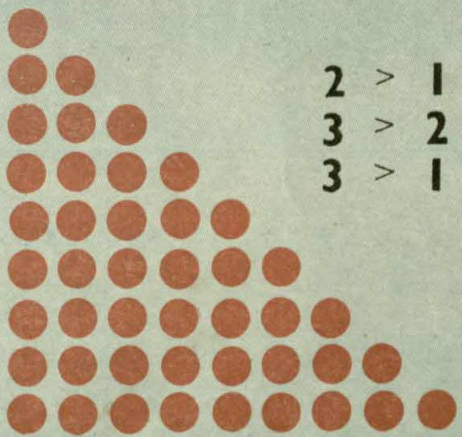
$\square > \square$

$\square - \square = \square$

9 > 8		
9 > 7	8 > 7	
9 > 6	8 > 6	7 > 6
9 > □	8 > □	7 > □
9 > □	8 > □	7 > □
9 > □	8 > □	7 > □
9 > □	8 > □	7 > □
9 > □	8 > □	7 > □



9 > 8	8 > 7	8 Lies between 9 and 7
8 > 7	7 > 6	7 Lies between 8 and 6
7 > 6	6 > 5	6 Lies between □ and □
6 > 5	5 > 4	□ Lies between 6 and □
5 > 4	4 > 3	□ Lies between □ and 3
4 > 3	3 > 2	3 Lies between □ and □
3 > 2	2 > 1	□ Lies between □ and □

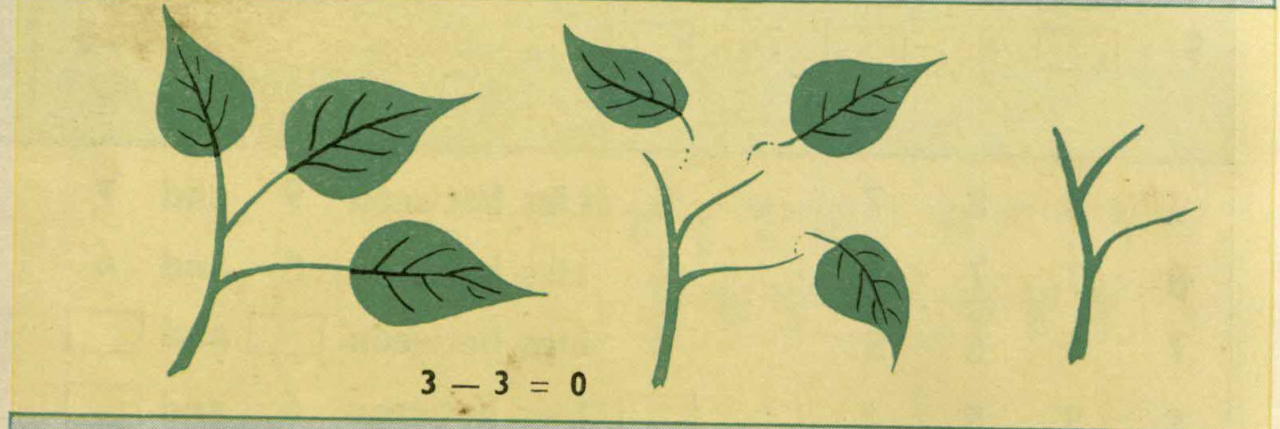


2 > 1	3 > 2		6 > 5
3 > 2		5 > 4	
3 > 1	3 > □		6 > □
		5 > □	
	4 > 3		6 > □
		5 > □	
	4 > □		6 > □
	4 > □	5 > □	6 > □

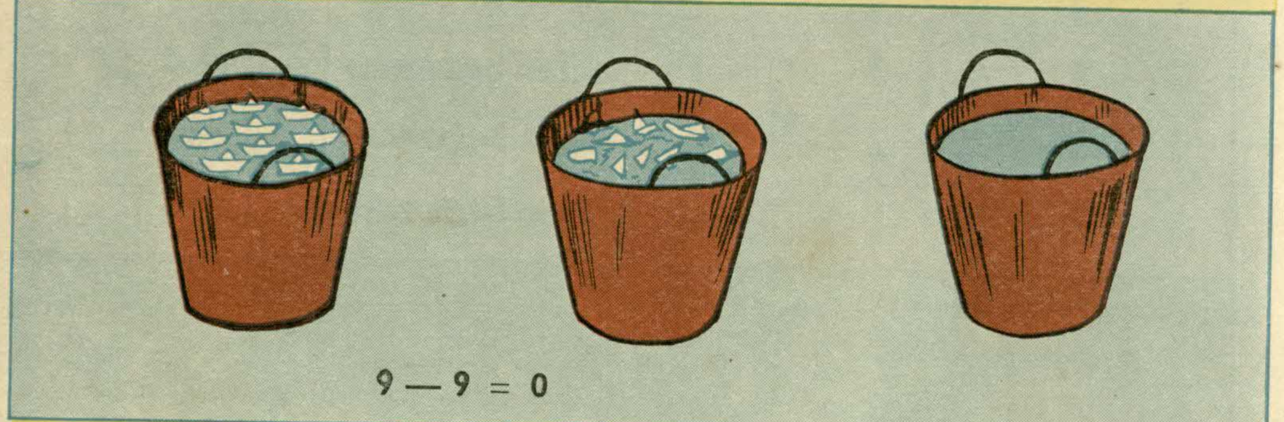
8 > 5	5 > 3	8 > 3
9 > 6	6 > 3	9 > 3



1 — 1 = 0



3 — 3 = 0

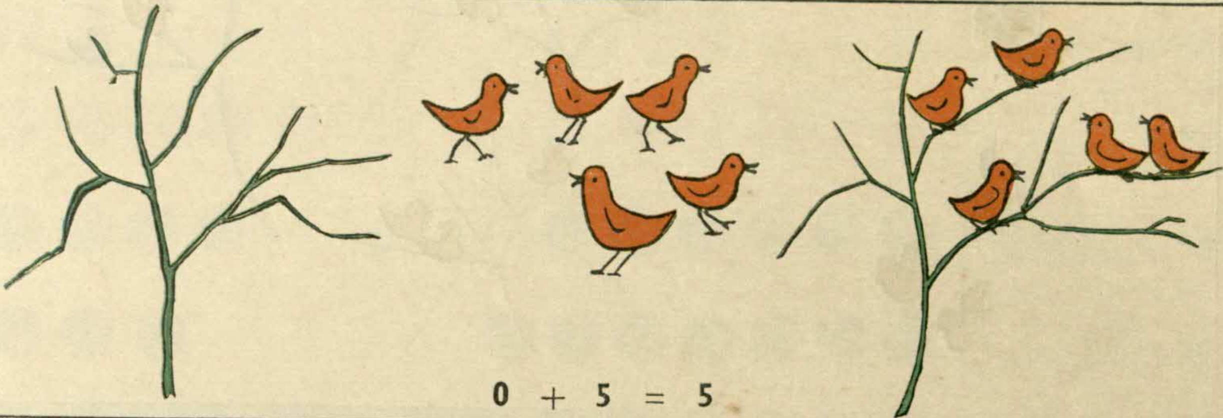


9 — 9 = 0

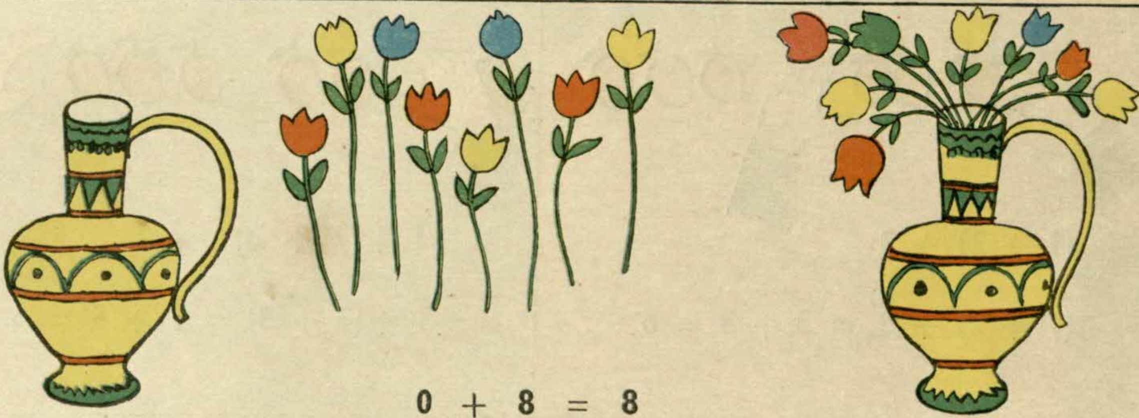
1 — 1 = ◌	4 — 4 = ☐	7 — 7 = ☐
2 — 2 = ◌	5 — 5 = ☐	8 — 8 = ☐
3 — 3 = ◌	6 — 6 = ☐	9 — 9 = ☐



$0 + 2 = 2$

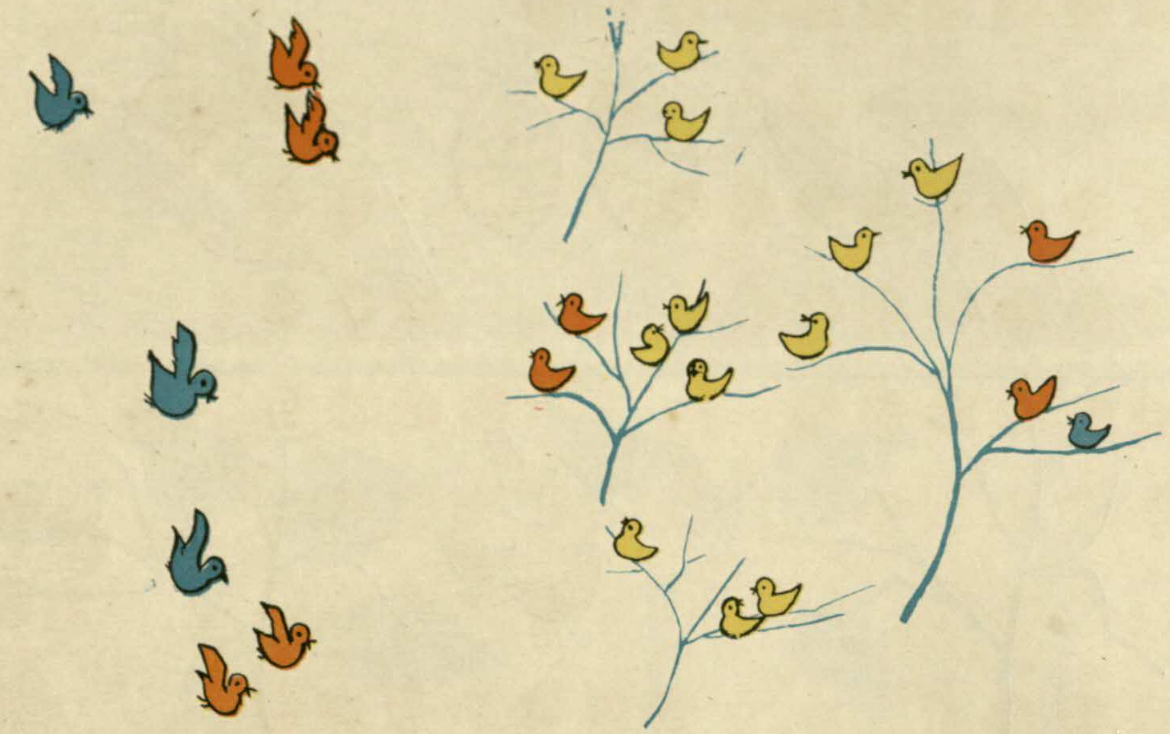


$0 + 5 = 5$



$0 + 8 = 8$

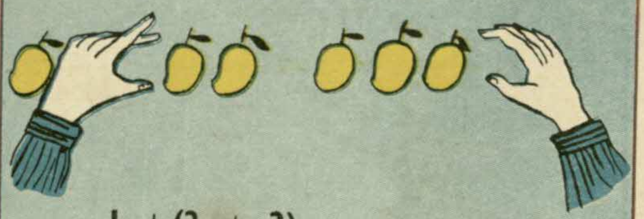
0 + 1 = 1	0 + 4 = □	0 + 7 = □
0 + 2 = 2	0 + 5 = □	0 + 8 = □
0 + 3 = 3	0 + 6 = □	0 + 9 = □





$(1 + 2) + 3$

$(1 + 2) + 3 = 3 + 3 = 6$



$1 + (2 + 3)$

$1 + (2 + 3) = 1 + 5 = 6$

$2 + (3 + 4) = 2 + 7 = 9$

$3 + (2 + 4) = \square + \square = \square$

$1 + (3 + 5) = \square + \square = \square$

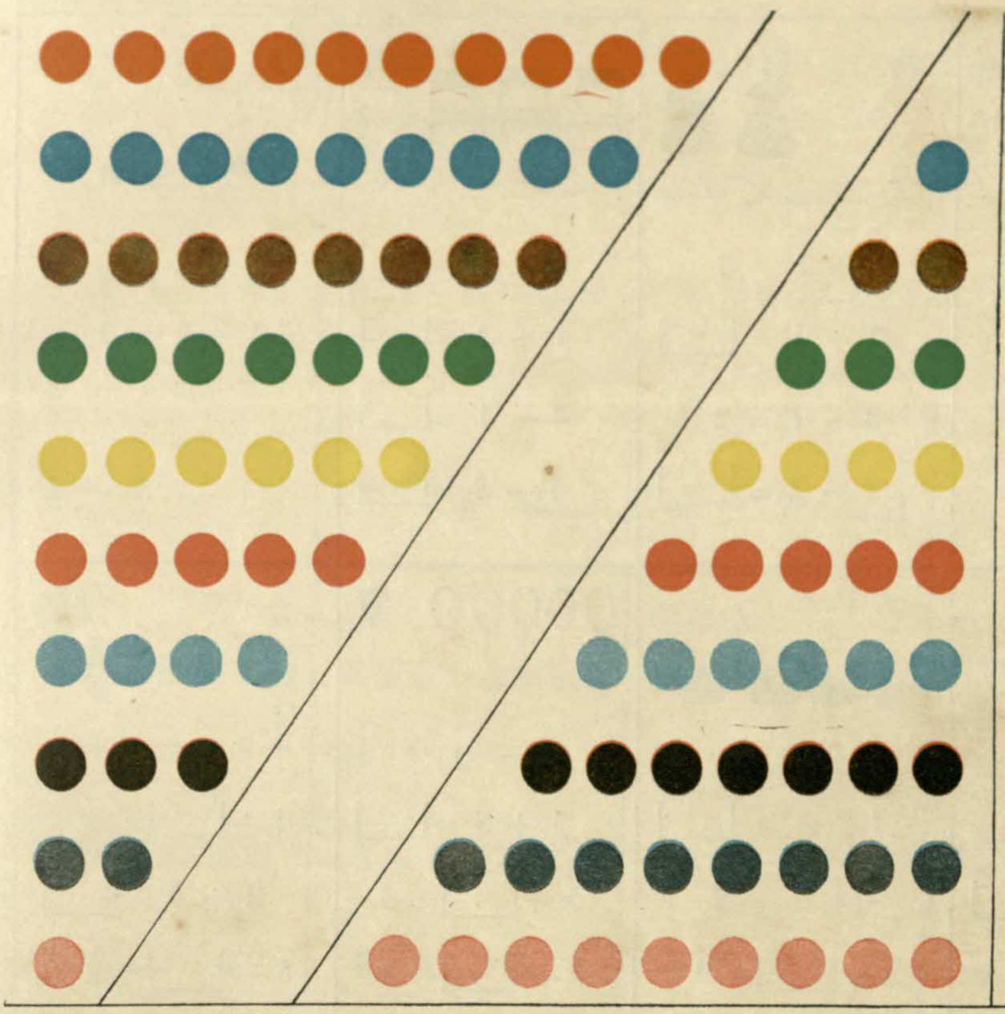
$3 + (1 + 4) = \square + \square = \square$

$(2 + 3) + 4 = 5 + 4 = 9$

$(3 + 2) + 4 = \square + \square = \square$

$(1 + 3) + 5 = \square + \square = \square$

$(3 + 2) + 4 = \square + \square = \square$



10 + 0 = 10
9 + 1 = 10
___ + ___ = 10
___ + ___ = 10
___ + ___ = 10
___ + ___ = 10
___ + ___ = 10
___ + ___ = 10
___ + ___ = 10
___ + ___ = 10

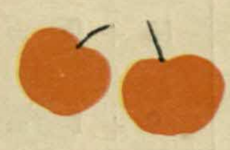
7 + 3 = 10
9 + 1 = 10
4 + 6 = 10

3 + 7 = 10
1 + 9 = 10
6 + 4 = 10

5 + 5 = 10

3 + (3 + 4) = 3 + 7 = 10
(3 + 3) + 4 = 6 + 4 = 10

3 + 3 + 4 = 10



$1 + 1 = 2$

$2 - 1 = 1$



$1 + 2 = 3$

$2 + 1 = \square$

$3 - 1 = 2$

$3 - 2 = \square$

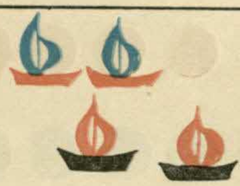


$3 + 1 = \square$

$1 + 3 = \square$

$4 - 1 = \square$

$4 - 3 = \square$



$2 + 2 = \square$

$4 - 2 = 2$



$\square + 3 = 5$

$3 + 2 = \square$

$5 - \square = 3$

$5 - 3 = \square$

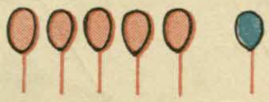


$1 + 4 = \square$

$\square + 1 = 5$

$5 - \square = 4$

$5 - 4 = \square$

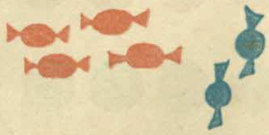


$1 + 5 = \square$

$5 + \square = 6$

$6 - \square = 5$

$6 - 5 = \square$

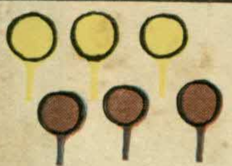


$4 + \square = 6$

$2 + 4 = \square$

$6 - \square = 2$

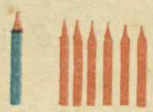
$6 - 2 = \square$



$3 + 3 = \square$

$6 - \square = 3$

$6 - 3 = \square$

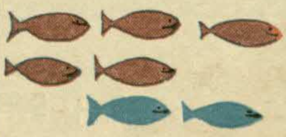


$\square + \square = 7$

$6 + \square = \square$

$7 - \square = 6$

$7 - 6 = \square$

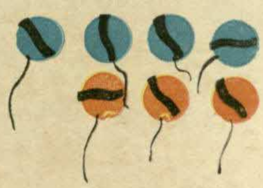


$\square + \square = \square$

$\square + 2 = \square$

$7 - \square = 5$

$7 - 5 = \square$



$4 + 3 = \square$

$\square + 4 = \square$

$7 - 3 = \square$

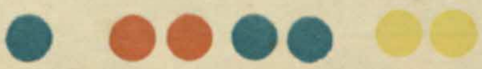
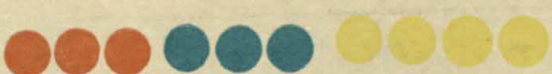
$\square - \square = 3$

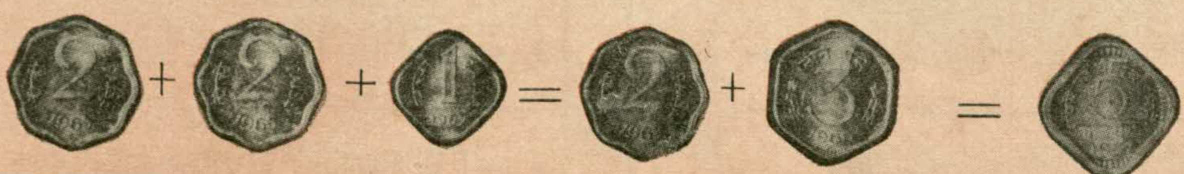
● (red) ●●●●●●● (red) 1 + 7 = 8 7 + 1 = 8 8 − 1 = 7 8 − 7 = 1	●● (blue) ●●●●●● (blue) 6 + 2 = □ □ + 6 = □ 8 − □ = 6 8 − 6 = □	●●● (yellow) ●●●●● (yellow) □ + □ = □ 5 + □ = □ 8 − □ = □ 8 − 5 = □	●●●● (green) ●●●● (green) □ + □ = 8 8 − □ = 4 8 − 4 = □
●● (blue) ●●●●●●● (blue) □ + □ = 9 7 + □ = □ 9 − □ = 7 □ − 7 = □	● (red) ●●●●●●●● (red) 8 + 1 = □ 1 + □ = □ 9 − □ = □ 9 − 8 = □	●●● (green) ●●●●●● (green) □ + □ = □ 6 + □ = □ 9 − 3 = □ 9 − □ = 3	●●●● (yellow) ●●●●● (yellow) □ + □ = □ 5 + □ = □ 9 − □ = 5 9 − □ = 4
● (yellow) ●●●●●●●●● (yellow) □ + □ = 10 9 + □ = □ 10 − □ = 9 10 − □ = 1	●● (blue) ●●●●●●● (blue) 7 + □ = □ 3 + □ = 10 10 − □ = 7 10 − □ = 3	●● (green) ●●●●●●●● (green) □ + □ = □ 8 + □ = □ 10 − □ = 8 10 − □ = 2	●●●● (red) ●●●●●● (red) □ + □ = □ □ + 4 = 10 10 − □ = 6 10 − 6 = □

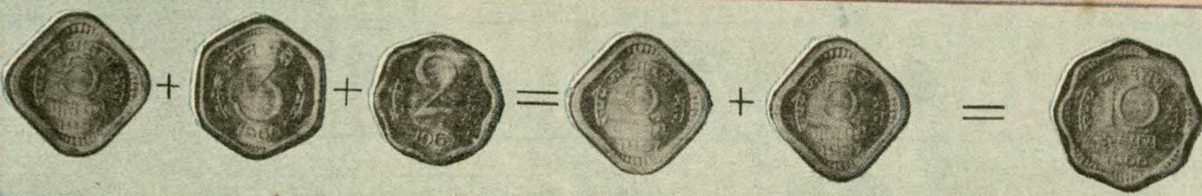
1 + 1 = □		10	10 − 1 = □
3 + 2 = □		9	9 − 2 = □
4 + 3 = □		8	7 − 3 = □
5 + 4 = □	↑	7	4 − 4 = □
3 + 5 = □		6	10 − 5 = □
4 + 6 = □	ADDING	5	9 − 6 = □
2 + 7 = □		4	8 − 7 = □
2 + 8 = □		3	9 − 9 = □
1 + 9 = □		2	10 − 8 = □
0 + 10 = □		1	10 − 10 = □
		0	

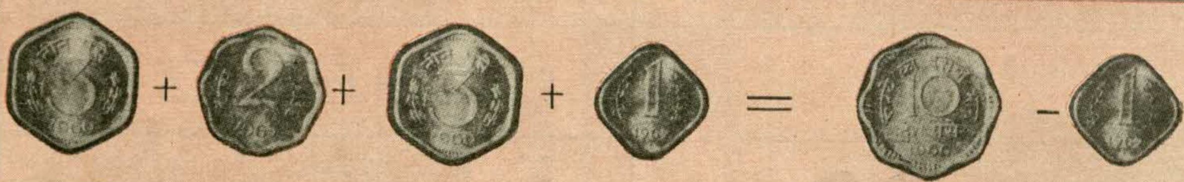
SUBTRACTING ↓

2 + (3+4) = 2 + □ = □	(2+2) + (2+2) = □ + □ = □
3 + (3+3) = 3 + □ = □	(1+1) + (3+4) = □ + □ = □
5 − (3+1) = 5 − □ = □	6 − (4−2) = 6 − □ = □
(5−3) + 1 = □ + □ = □	(6−4) + 2 = □ + 2 = □
5 − (3−1) = □ − □ = □	6 − (4+2) = 6 − □ = □
(5−3) − 1 = □ − 1 = □	(6−4) − 2 = □ − □ = □

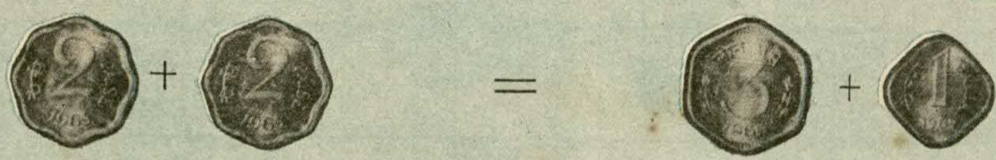
	3 = 1 + 1 + 1
	3 = □ + □ +
	4 = □ + □ +
	5 = □ + □ + □
	5 = □ + □ + □
	5 = □ + □ + □
	6 = □ + □ + □
	7 = □ + □ + □ + □
	7 = □ + □ + □
	□ = □ + □
	8 = □ + □ + □ + □
	9 = □ + □ + □
	9 = □ + □
	10 = □ + □ + □
	10 = □ + □



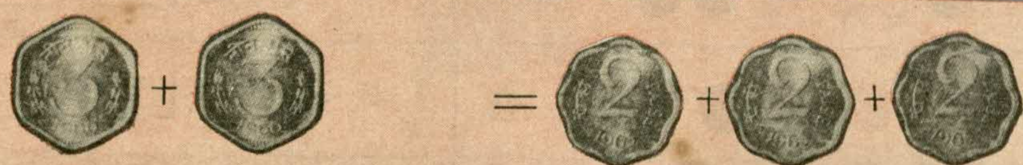




4 P =



6 P =

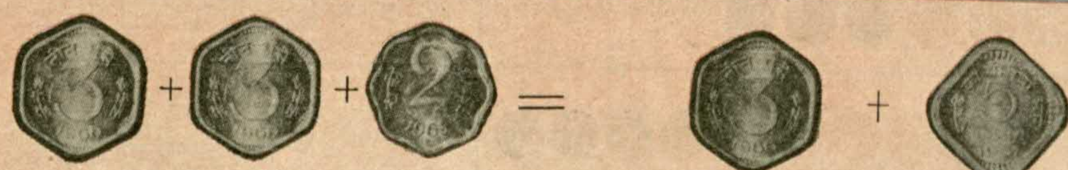


7 P =

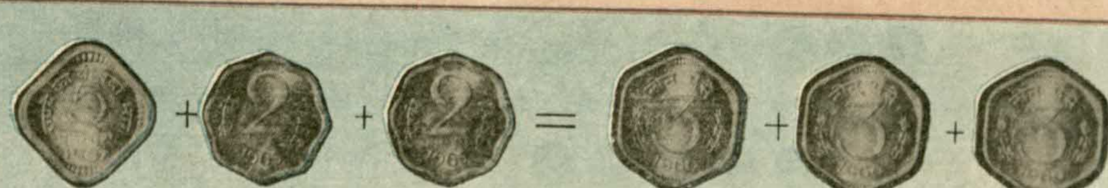
(3P + 3P + 1P)



8 P =



9 P =



DRAW RINGS ROUND THE COINS WHICH YOU CAN USE

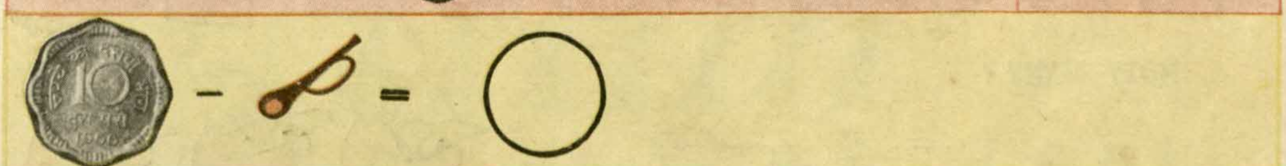


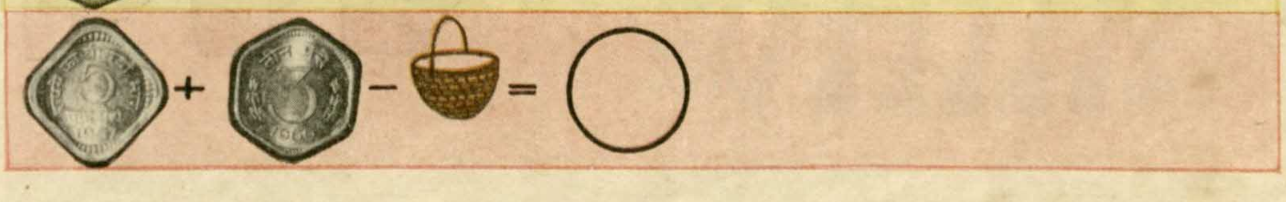












1 2 3 4 5 6 7 8 9 10 11

Count up to ten. The next number is 11



HOW MANY?



ELEVEN

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1 2 3 4 5 6 7 8 9 10 11 12

Count up to eleven. The next number is 12



HOW MANY?



TWELVE

---

1 2 3 4 5 6 7 8 9 10 11 12 13

Count up to twelve. The next number is 13



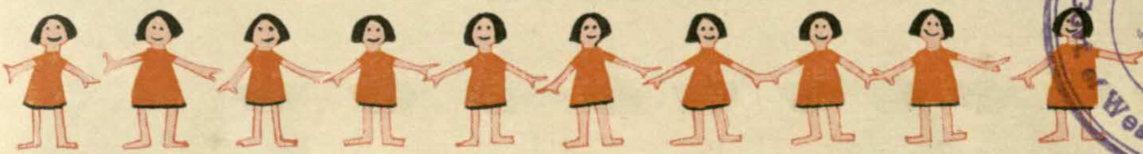
HOW MANY?



THIRTEEN

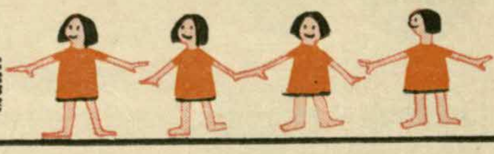
1 2 3 4 5 6 7 8 9 10 11 12 13 14

Count up to thirteen. The next number is 14



HOW MANY ?

FOURTEEN



---

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Count up to fourteen. The next number is 15



HOW MANY ?

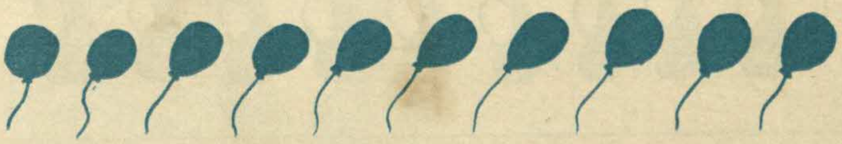
FIFTEEN



---

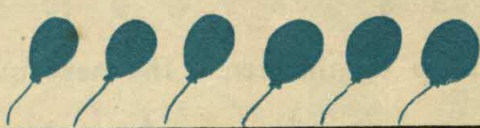
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Count up to fifteen. The next number is 16



HOW MANY ?

SIXTEEN



---

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

Count up to sixteen. The next number is 17



HOW MANY ?

SEVENTEEN



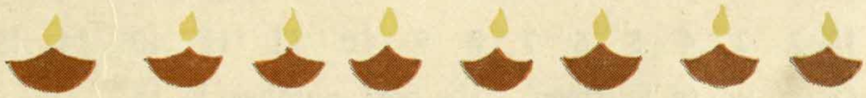
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

Count up to seventeen. The next number is 18



HOW MANY ?

EIGHTEEN



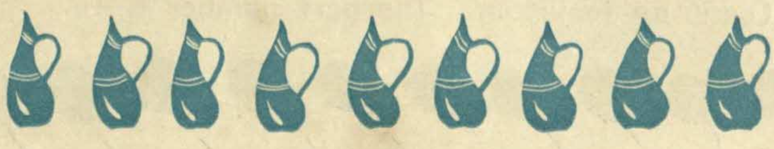
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

Count up to eighteen. The next number is 19



HOW MANY ?

NINETEEN



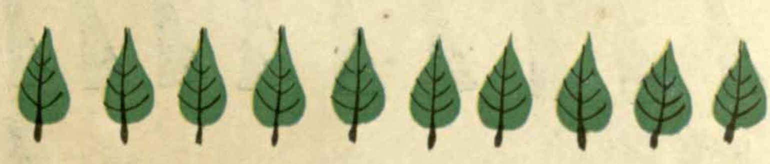
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

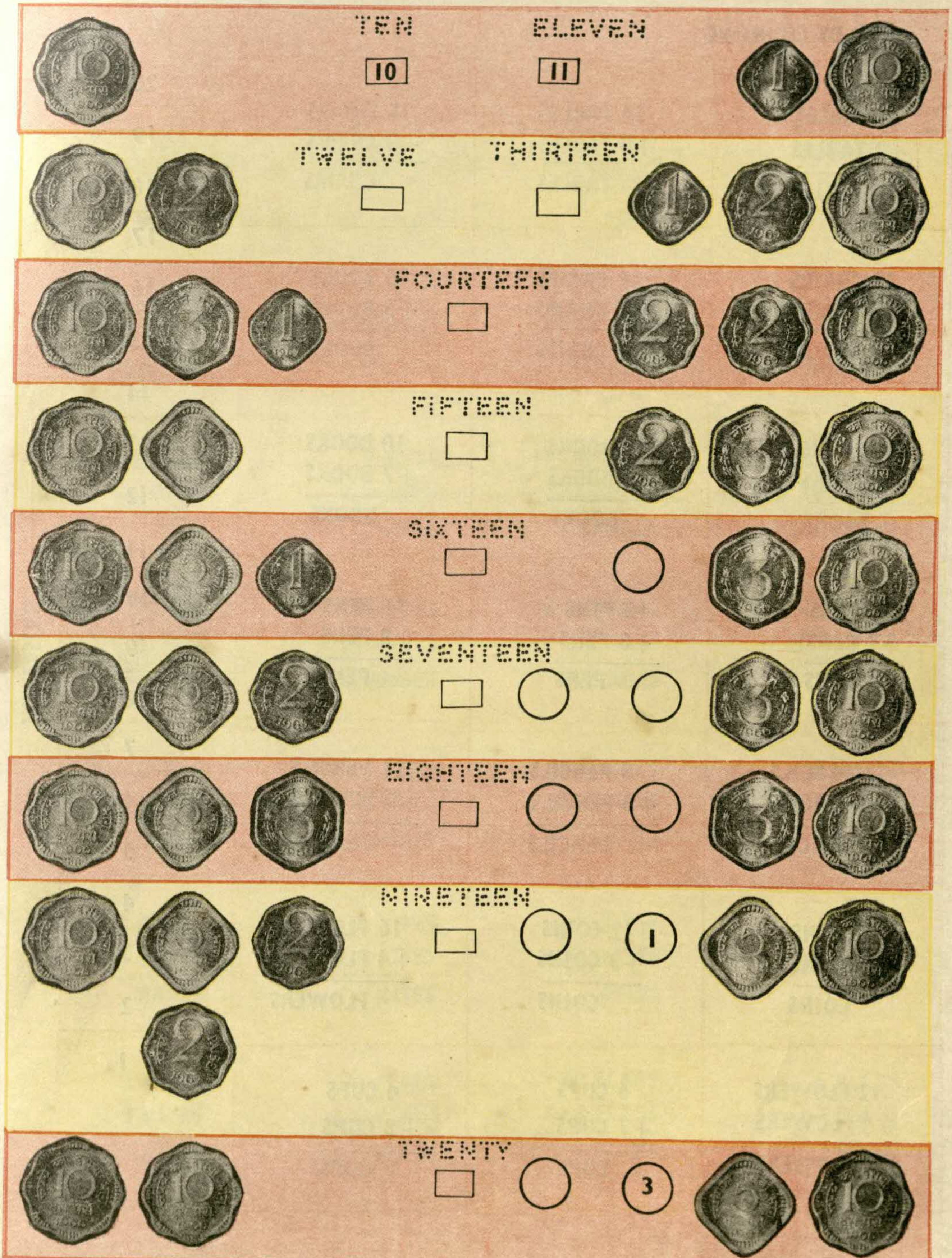
Count up to nineteen. The next number is 20



HOW MANY ?

TWENTY




TEN
ELEVEN
10
11
TWELVE
THIRTEEN
FOURTEEN
FIFTEEN
SIXTEEN
SEVENTEEN
EIGHTEEN
NINETEEN
1
TWENTY
3

ADD BY COUNTING

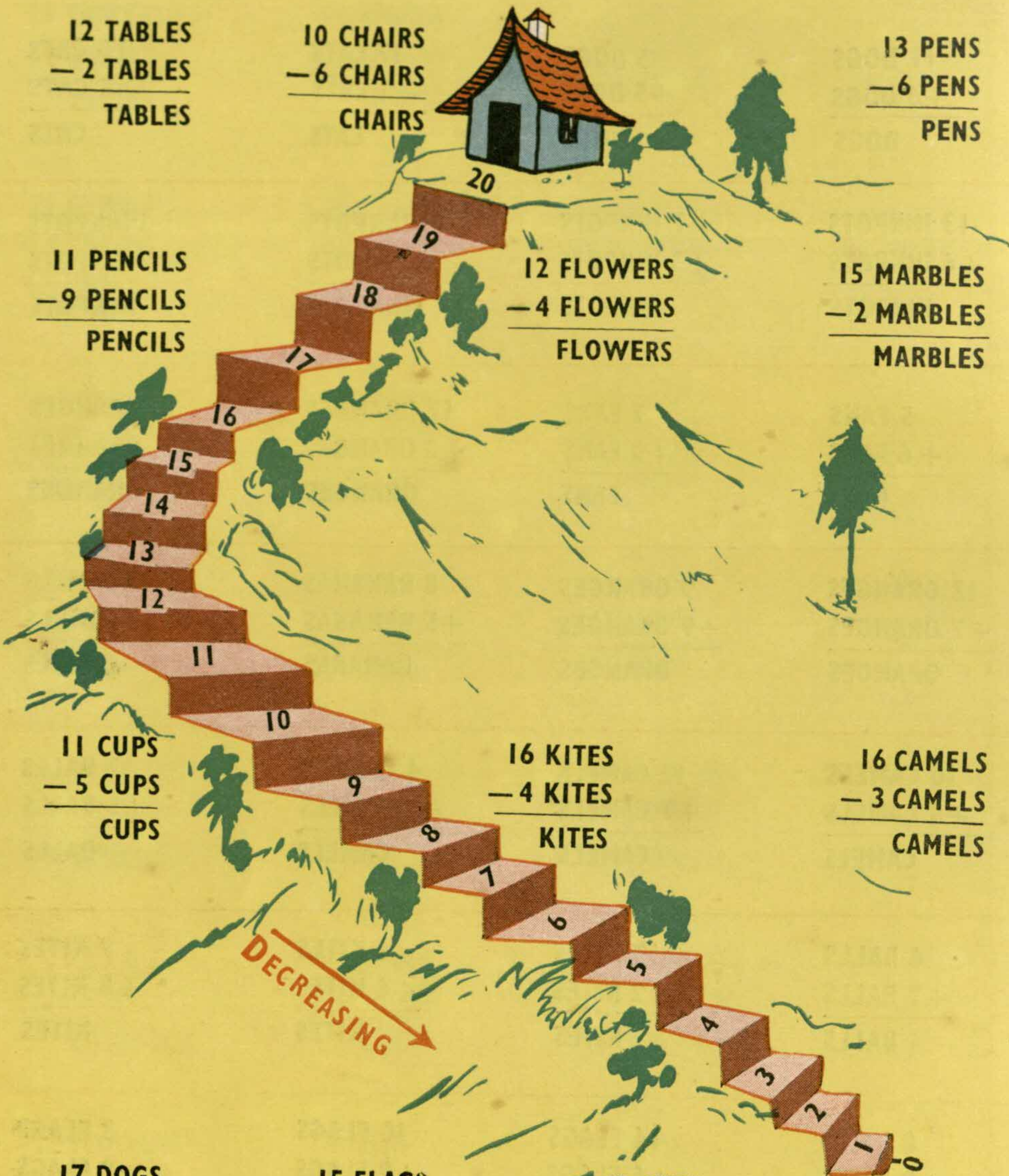
11 TABLES +2 TABLES ——— TABLES	14 TABLES +3 TABLES ——— TABLES	15 CHAIRS +3 CHAIRS ——— CHAIRS
11 CHAIRS +4 CHAIRS ——— CHAIRS	10 CHAIRS +6 CHAIRS ——— CHAIRS	15 BOOKS +5 BOOKS ——— BOOKS
9 BOOKS +5 BOOKS ——— BOOKS	7 BOOKS +6 BOOKS ——— BOOKS	10 BOOKS +7 BOOKS ——— BOOKS
11 PENS +7 PENS ——— PENS	7 PENS +8 PENS ——— PENS	11 PENS +8 PENS ——— PENS
12 PENCILS +4 PENCILS ——— PENCILS	8 PENCILS +8 PENCILS ——— PENCILS	11 PENCILS +9 PENCILS ——— PENCILS
2 COINS +16 COINS ——— COINS	12 COINS +3 COINS ——— COINS	16 FLOWERS +4 FLOWERS ——— FLOWERS
12 FLOWERS +4 FLOWERS ——— FLOWERS	6 CUPS +7 CUPS ——— CUPS	4 CUPS +8 CUPS ——— CUPS

20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1

INCREASING →

ADD BY COUNTING

11 DOGS	5 DOGS	17 CATS	13 CATS
+6 DOGS	+5 DOGS	+2 CATS	+5 CATS
DOGS	DOGS	CATS	CATS
13 INKPOTS	7 INKPOTS	13 INKPOTS	3 INKPOTS
+6 INKPOTS	+3 INKPOTS	+5 INKPOTS	+9 INKPOTS
INKPOTS	INKPOTS	INKPOTS	INKPOTS
5 FANS	7 FANS	17 ORANGES	9 ORANGES
+6 FANS	+9 FANS	+3 ORANGES	+6 ORANGES
FANS	FANS	ORANGES	ORANGES
13 ORANGES	9 ORANGES	8 BANANAS	3 CAMELS
+7 ORANGES	+9 ORANGES	+5 BANANAS	+16 CAMELS
ORANGES	ORANGES	BANANAS	CAMELS
10 CAMELS	12 CAMELS	4 CAMELS	12 BALLS
+5 CAMELS	+7 CAMELS	+9 CAMELS	+5 BALLS
CAMELS	CAMELS	CAMELS	BALLS
6 BALLS	18 KITES	6 KITES	9 KITES
+7 BALLS	+2 KITES	+6 KITES	+8 KITES
BALLS	KITES	KITES	KITES
8 KITES	14 FLAGS	10 FLAGS	5 FLAGS
+9 KITES	+6 FLAGS	+8 FLAGS	+9 FLAGS
KITES	FLAGS	FLAGS	FLAGS



12 TABLES
− 2 TABLES
____ TABLES

10 CHAIRS
− 6 CHAIRS
____ CHAIRS

13 PENS
− 6 PENS
____ PENS

11 PENCILS
− 9 PENCILS
____ PENCILS

12 FLOWERS
− 4 FLOWERS
____ FLOWERS

15 MARBLES
− 2 MARBLES
____ MARBLES

11 CUPS
− 5 CUPS
____ CUPS

16 KITES
− 4 KITES
____ KITES

16 CAMELS
− 3 CAMELS
____ CAMELS

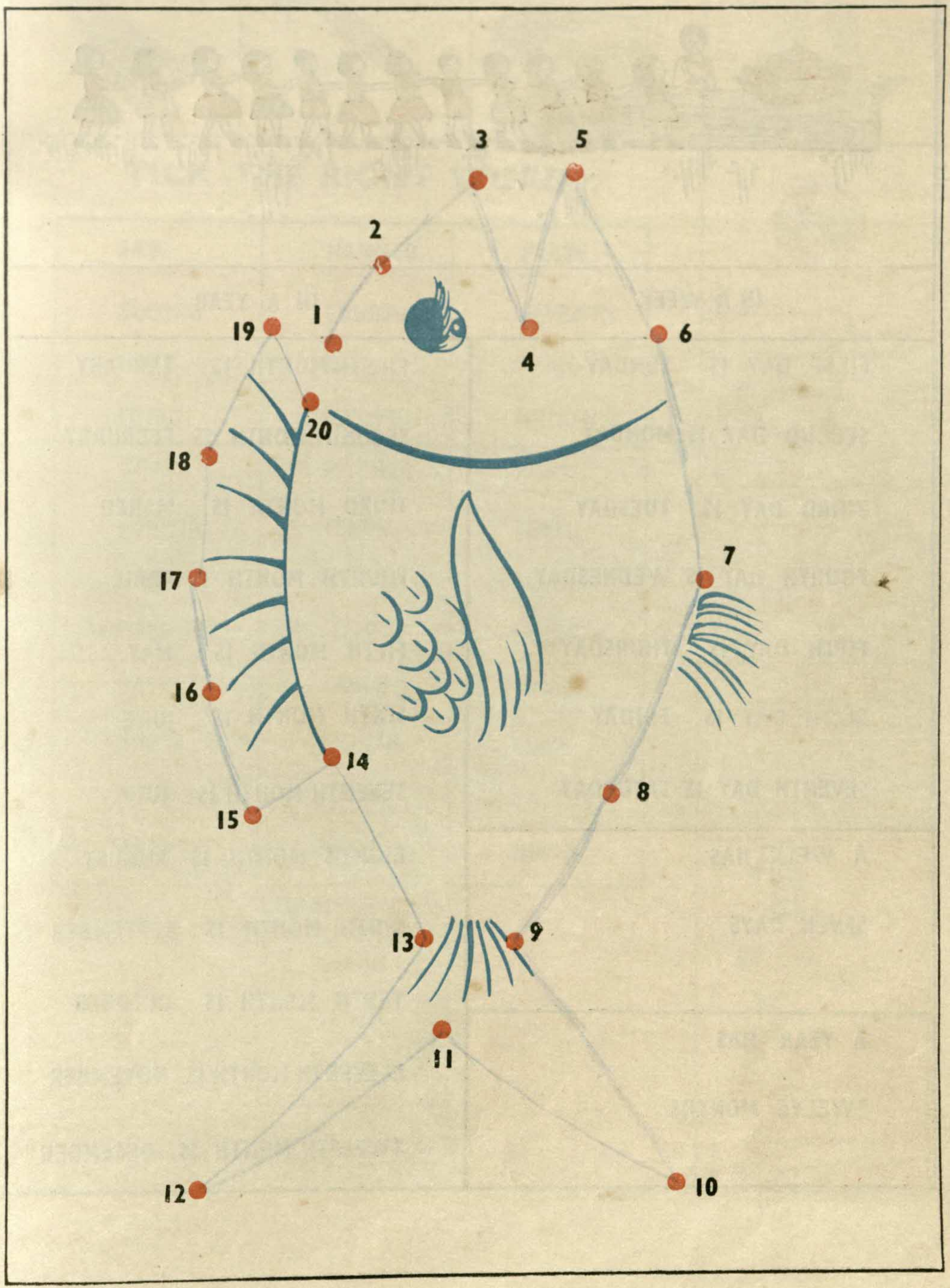
17 DOGS
− 4 DOGS
____ DOGS

15 FLAGS
− 5 FLAGS
____ FLAGS

12 CUPS
− 4 CUPS
____ CUPS

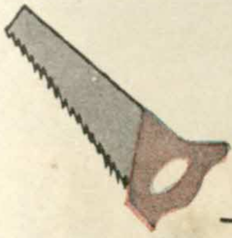
15 KITES
− 4 KITES
____ KITES

JOIN THE POINTS 20 TO 19, 19 TO 18 ETC., IN DECREASING ORDER AND SEE WHAT YOU GET

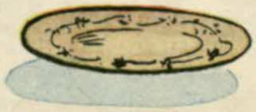




IN A WEEK	IN A YEAR
FIRST DAY IS SUNDAY	FIRST MONTH IS JANUARY
SECOND DAY IS MONDAY	SECOND MONTH IS FEBRUARY
THIRD DAY IS TUESDAY	THIRD MONTH IS MARCH
FOURTH DAY IS WEDNESDAY	FOURTH MONTH IS APRIL
FIFTH DAY IS THURSDAY	FIFTH MONTH IS MAY
SIXTH DAY IS FRIDAY	SIXTH MONTH IS JUNE
SEVENTH DAY IS SATURDAY	SEVENTH MONTH IS JULY
A WEEK HAS SEVEN DAYS	EIGHTH MONTH IS AUGUST
	NINTH MONTH IS SEPTEMBER
	TENTH MONTH IS OCTOBER
A YEAR HAS TWELVE MONTHS	ELEVENTH MONTH IS NOVEMBER
	TWELFTH MONTH IS DECEMBER



















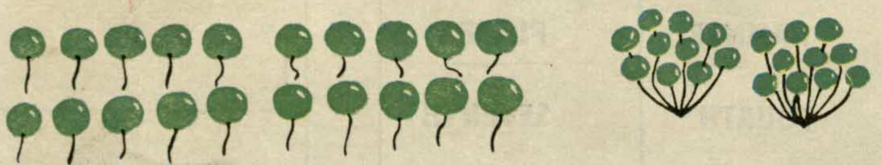


TICK THE RIGHT WORD

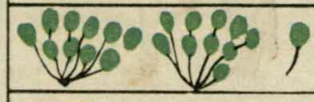
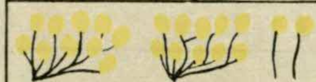
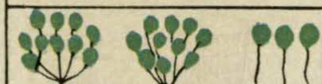
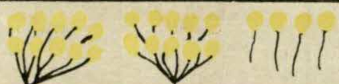
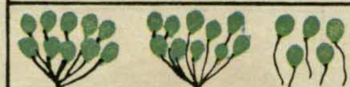
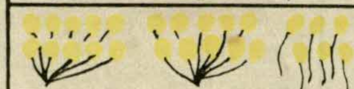
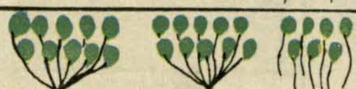
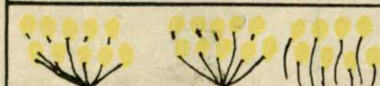
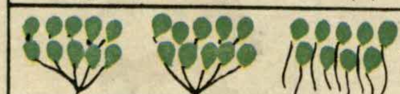
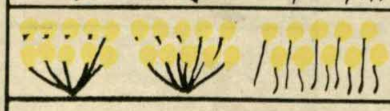
SAW	HAMMER	PLATE
SECOND	FOURTH	SEVENTH
FIRST	THIRD	THIRD
THIRD	SECOND	FOURTH
BOAT	**PITCHER**	**PONY**
FOURTH	TENTH	THIRD
NINTH	SECOND	SIXTH
FIFTH	FIFTH	SEVENTH
BASKET	**TABLE**	**JOKER**
NINTH	EIGHTH	FIFTH
SECOND	SIXTH	EIGHTH
SEVENTH	FIFTH	NINTH
	SPINNINGWHEEL	
	NINTH	
	TENTH	
	FIRST	



TEN



TWENTY

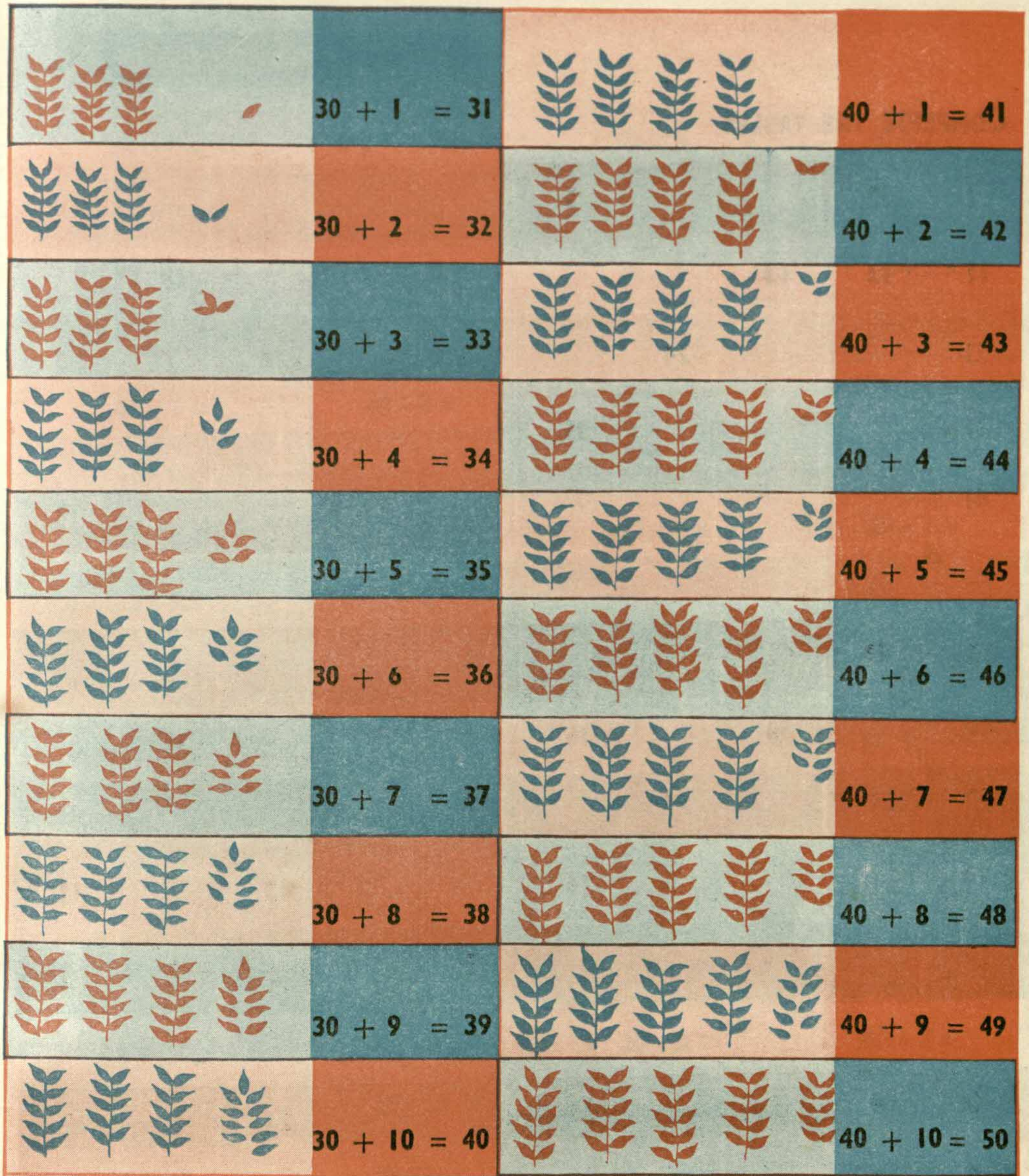
	2 TENS AND I UNIT	= 20 + I	= 2I	TWENTYONE
	2 TENS AND 2 UNITS	= 20 + 2	= 22	TWENTYTWO
	2 TENS AND 3 UNITS	= 20 + 3	= 23	TWENTYTHREE
	2 TENS AND 4 UNITS	= 20 + 4	= 24	TWENTYFOUR
	2 TENS AND 5 UNITS	= 20 + 5	= 25	TWENTYFIVE
	2 TENS AND 6 UNITS	= 20 + 6	= 26	TWENTYSIX
	2 TENS AND 7 UNITS	= 20 + 7	= 27	TWENTYSEVEN
	2 TENS AND 8 UNITS	= 20 + 8	= 28	TWENTYEIGHT
	2 TENS AND 9 UNITS	= 20 + 9	= 29	TWENTYNINE
	2 TENS AND I0 UNITS	= 20 + I0	= 30	THIRTY

2I = 2 TENS + I

25 = 2 TENS + ☐

26 = 2 TENS + 6

28 = 2 TENS + ☐



THIRTY	FORTY	FIFTY
33 = 3 TENS + [ ]	45 = 4 TENS + 5	30 = 3 TENS + 0
38 = [ ] TENS + [ ]	49 = 4 TENS + 9	40 = [ ] TENS + [ ]

Complete the tables

1	2			5					10
11	12	13				17		19	
21			24		26		28		30
31				35					
41									50

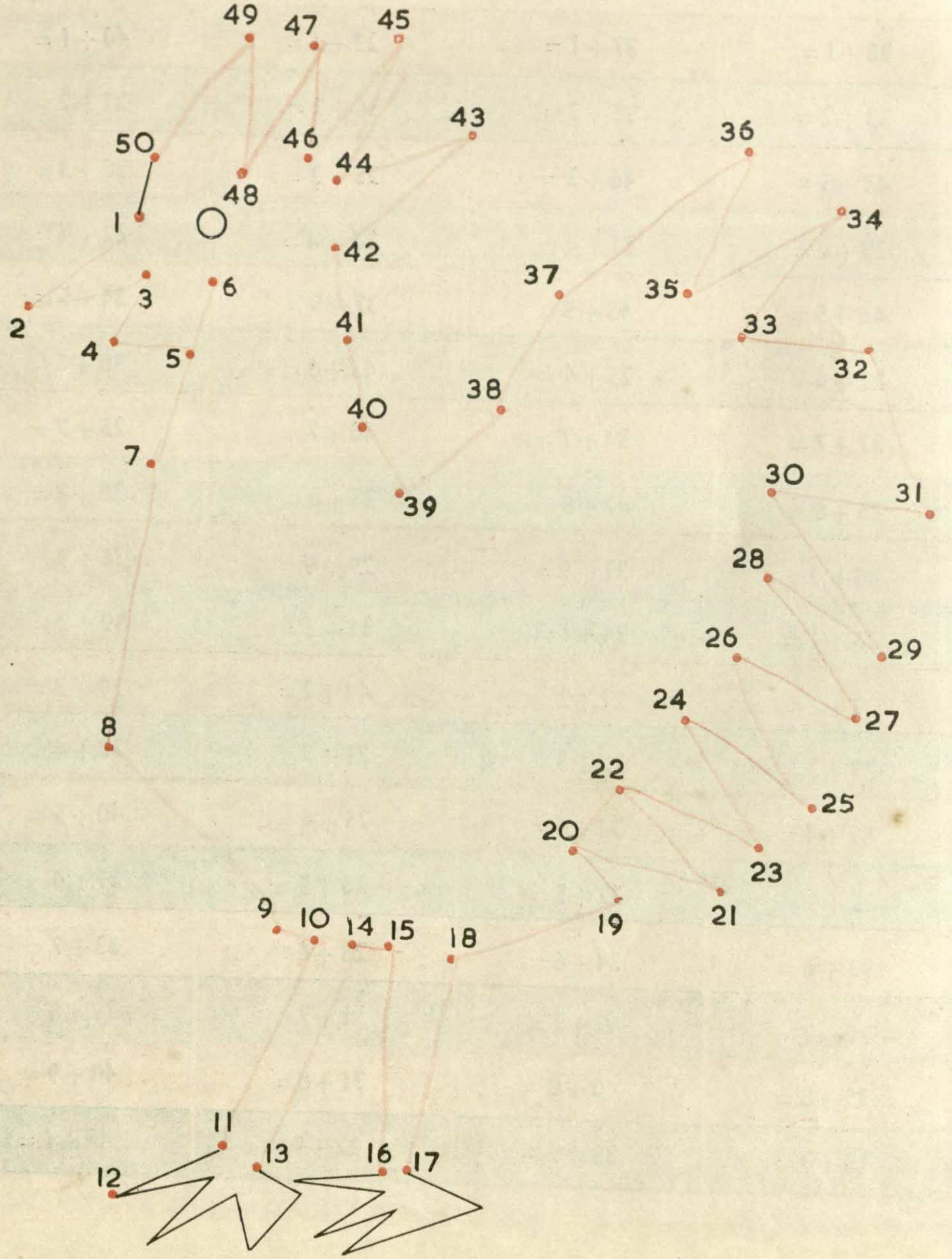
50	49	48			45		43		
40		38		36		34		32	
30	29		27		25				21
20				16			13		11
10					5			2	1

3	6	9		15			24		30
4	8		16		24			36	40
5	10		20		30		40		50

ADD BY COUNTING

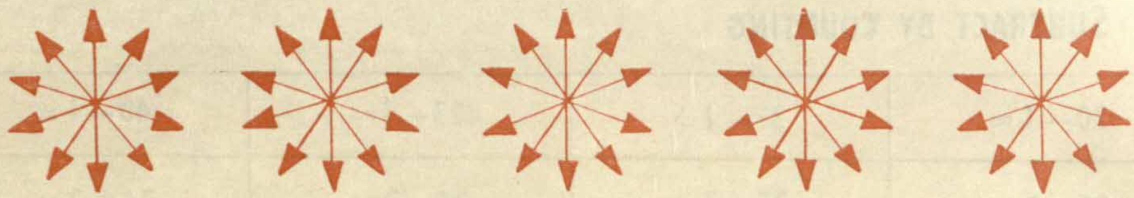
20 + 1 =	37 + 1 =	23 + 1 =	40 + 1 =
33 + 2 =	25 + 2 =	36 + 2 =	21 + 2 =
43 + 3 =	46 + 3 =	25 + 3 =	38 + 3 =
29 + 4 =	31 + 4 =	26 + 4 =	22 + 4 =
46 + 5 =	45 + 5 =	37 + 5 =	34 + 5 =
22 + 6 =	25 + 6 =	43 + 6 =	30 + 6 =
37 + 7 =	34 + 7 =	40 + 7 =	25 + 7 =
26 + 8 =	42 + 8 =	23 + 8 =	28 + 8 =
24 + 9 =	31 + 9 =	29 + 9 =	36 + 9 =
26 + 1 =	34 + 1 =	31 + 1 =	39 + 2 =
30 + 2 =	22 + 2 =	44 + 2 =	29 + 3 =
27 + 3 =	20 + 3 =	21 + 3 =	37 + 4 =
89 + 4 =	34 + 4 =	25 + 4 =	40 + 5 =
31 + 5 =	22 + 5 =	26 + 5 =	39 + 4 =
91 + 6 =	34 + 6 =	28 + 6 =	33 + 7 =
29 + 7 =	49 + 7 =	31 + 7 =	29 + 8 =
35 + 8 =	40 + 8 =	31 + 8 =	40 + 9 =
25 + 9 =	38 + 9 =	22 + 9 =	42 + 1 =

JOIN LINES FROM 1 TO 2, 2 TO 3, ETC.
IN INCREASING ORDER AND SEE WHAT YOU GET

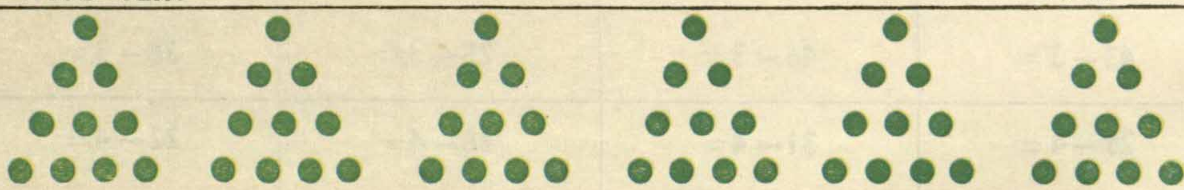


SUBTRACT BY COUNTING

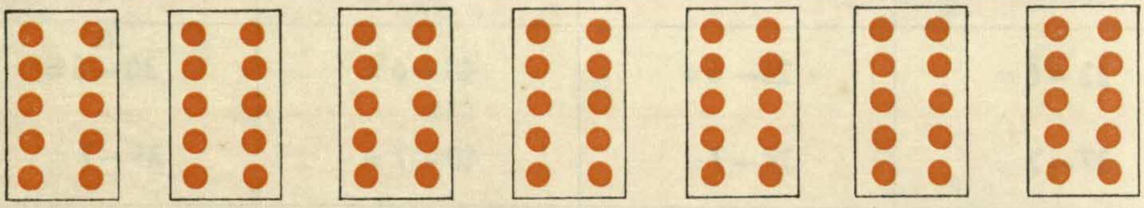
20 − 1 =	37 − 1 =	23 − 1 =	40 − 1 =
33 − 2 =	25 − 2 =	36 − 2 =	21 − 2 =
43 − 3 =	46 − 3 =	25 − 3 =	38 − 3 =
29 − 4 =	31 − 4 =	26 − 4 =	22 − 4 =
46 − 5 =	45 − 5 =	37 − 5 =	34 − 5 =
22 − 6 =	25 − 6 =	43 − 6 =	30 − 6 =
37 − 7 =	34 − 7 =	40 − 7 =	25 − 7 =
26 − 8 =	42 − 8 =	23 − 8 =	28 − 8 =
24 − 9 =	31 − 9 =	29 − 9 =	36 − 9 =
26 − 1 =	34 − 1 =	31 − 1 =	42 − 1 =
30 − 2 =	22 − 2 =	44 − 2 =	39 − 2 =
27 − 3 =	20 − 3 =	21 − 3 =	29 − 3 =
89 − 4 =	34 − 4 =	25 − 4 =	37 − 4 =
31 − 5 =	22 − 5 =	26 − 5 =	40 − 5 =
91 − 6 =	34 − 6 =	28 − 6 =	39 − 4 =
29 − 7 =	49 − 7 =	31 − 7 =	33 − 7 =
35 − 8 =	40 − 8 =	31 − 8 =	29 − 8 =
25 − 9 =	38 − 9 =	22 − 9 =	40 − 9 =



FIVE TENS FIFTY



SIX TENS SIXTY



SEVEN TENS SEVENTY

FIFTY ONE 51	SIXTY ONE 61	SEVENTY ONE 71
FIFTY TWO 52	SIXTY TWO 62	SEVENTY TWO 72
FIFTY THREE 53	SIXTY THREE 63	SEVENTY THREE 73
FIFTY FOUR 54	SIXTY FOUR 64	SEVENTY FOUR 74
FIFTY FIVE 55	SIXTY FIVE 65	SEVENTY FIVE 75
FIFTY SIX 56	SIXTY SIX 66	SEVENTY SIX 76
FIFTY SEVEN 57	SIXTY SEVEN 67	SEVENTY SEVEN 77
FIFTY EIGHT 58	SIXTY EIGHT 68	SEVENTY EIGHT 78
FIFTY NINE 59	SIXTY NINE 69	SEVENTY NINE 79
SIXTY 60	SEVENTY 70	EIGHTY 80

8 Tens and one = 80 + 1 = 81	9 Tens and one = 90 + 1 = 91
8 Tens and two = 80 + 2 = 82	9 Tens and two = 90 + 2 = 92
8 Tens and three = ☐ + ☐ = 83	9 Tens and three = 90 + 3 = 93
8 Tens and four = ☐ + ☐ = 84	9 Tens and four = 90 + 4 = 94
8 Tens and five = ☐ + ☐ = 85	9 Tens and five = 90 + 5 = 95
8 Tens and six = ☐ + ☐ = 86	9 Tens and six = 90 + 6 = 96
8 Tens and seven = ☐ + ☐ = 87	9 Tens and seven = 90 + 7 = 97
8 Tens and eight = ☐ + ☐ = 88	9 Tens and eight = 90 + 8 = 98
8 Tens and nine = ☐ + ☐ = 89	9 Tens and nine = 90 + 9 = 99
8 Tens and ten = ☐ + ☐ = 90	9 Tens and ten = 90 + 10 = 100

10	20	30	40	50
TEN	TWENTY	THIRTY	FORTY	FIFTY
60	70	80	90	100
SIXTY	SEVENTY	EIGHTY	NINETY	HUNDRED

COMPLETE THE TABLES

1	2				6			9	
11			14				18		
21		23		25					30
31					36				40
41			44			47			50
51		53		55		57		59	
61			64				68		70
71		73			76			79	
81			84			87			90
91				95				99	100

6	12	18		30		42		54	60
7	14				42		56		70
8	16		32			56		72	
9	18			45			72		90
10	20				60		80		100

ADD BY COUNTING

20 + 1 = ☐	90 + 9 = ☐	11 + 0 = ☐
31 + 2 = ☐	81 + 8 = ☐	20 + 1 = ☐
42 + 3 = ☐	2 + 72 = ☐	3 + 32 = ☐
53 + 4 = ☐	63 + 6 = ☐	43 + 4 = ☐
64 + 5 = ☐	54 + 5 = ☐	52 + 5 = ☐
3 + 67 = ☐	45 + 4 = ☐	6 + 60 = ☐
82 + 7 = ☐	36 + 3 = ☐	71 + 7 = ☐
91 + 8 = ☐	27 + 0 = ☐	80 + 8 = ☐
10 + 9 = ☐	18 + 3 = ☐	0 + 9 = ☐

SUBTRACT BY COUNTING

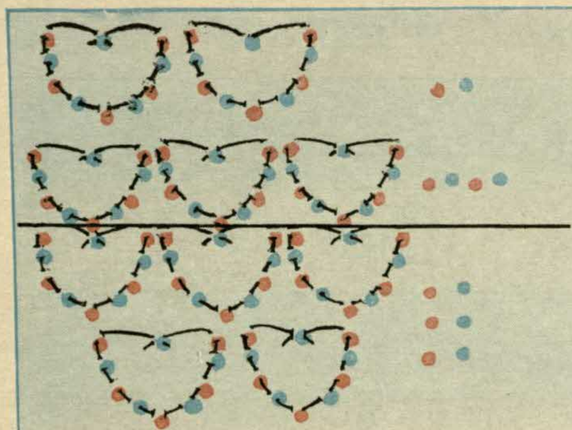
21 − 2 = ☐	99 − 9 = ☐	11 − 0 = ☐
33 − 2 = ☐	89 − 8 = ☐	21 − 1 = ☐
45 − 3 = ☐	79 − 7 = ☐	35 − 3 = ☐
57 − 4 = ☐	69 − 6 = ☐	47 − 4 = ☐
69 − 5 = ☐	59 − 0 = ☐	57 − 5 = ☐
79 − 6 = ☐	49 − 4 = ☐	66 − 6 = ☐
89 − 7 = ☐	39 − 3 = ☐	78 − 7 = ☐
99 − 8 = ☐	29 − 2 = ☐	88 − 8 = ☐
19 − 9 = ☐	19 − 1 = ☐	9 − 0 = ☐

1 TEN + 1 TEN = 2 TENS	10 + 10 = 20
2 TENS + 3 TENS = 5 TENS	20 + 30 = 50
3 TENS + 4 TENS = □ TENS	30 + 40 = □
4 TENS + 5 TENS = □ TENS	40 + 50 = □
2 TENS + 8 TENS = □ TENS	20 + 80 = □
1 TEN + 7 TENS = □ TENS	10 + 70 = □
30 + 50 = □	20 + 70 = □
10 + 80 = □	80 + 10 = □

0	10	20	30	40	50	60	70	80	90	100

1 TEN − 1 TEN = 0 TENS	10 − 10 = 0
3 TENS − 2 TENS = 1 TEN	30 − 20 = 10
5 TENS − 3 TENS = □ TENS	50 − 30 = □
7 TENS − 4 TENS = □ TENS	70 − 40 = □
8 TENS − 2 TENS = □ TENS	80 − 20 = □
9 TENS − 1 TEN = □ TENS	90 − 10 = □
80 − 30 = □	90 − 20 = □
90 − 10 = □	90 − 80 = □

53 + 20 =	(5 TENS + 3) + 2 TENS	= 7 TENS + 3	= 73
74 + 10 =	(7 TENS + 4) + 1 TEN	= 8 TENS + 4	= 84
22 + 40 =	(□ TENS + 2) + □ TENS	= □ TENS + 2	= □
38 + 50 =		=	= □
25 + 60 =		=	= □
17 + 70 =		=	= □
16 + 80 =		=	= □
53 + 25 =	(5 TENS + 3) + (2 TENS + 5)	= 7 TENS + 8	= 78
74 + 12 =	(7 TENS + 4) + (1 TEN + 2)	= 8 TENS + 6	= 86
22 + 45 =	(□ TENS + 2)+(□ TENS + 5)	= □ TENS + □	= □
38 + 51 =	(□ TENS + □)+(□ TENS+□)	= □ TENS + □	= □
25 + 63 =	(□ TENS + □)+(□ TENS+□)	= □ TENS + □	= □
17 + 71 =	(□ TENS + □)+(□ TENS+□)	= □ TENS + □	= □
16 + 83 =	(□ TENS + □)+(□ TENS+□)	= □ TENS + □	= □
41 + 36 =		=	=
69 + 20 =		=	=
38 + 31 =		=	=



	T. U.
2 TENS + 2	22
+3 TENS + 4	34
5 TENS + 6	56

53 +25	74 +12	22 +45	38 +51
25 +62	17 +71	25 +52	36 +63
16 +83	41 +36	69 +20	38 +31
18 +81	36 +53	26 +62	31 +17

23 +16	35 +12	14 +24	26 +13
18 +20	30 +11	27 +21	35 +14
51 +14	30 +20	15 +34	4 +44
6 +21	7 +41	34 + 5	5 +34
11 22 +33	12 24 +31	31 22 +14	14 15 +20



3 TENS + 4 = 34

2 TENS + 1 = 21

---

1 TEN + 3 = 13

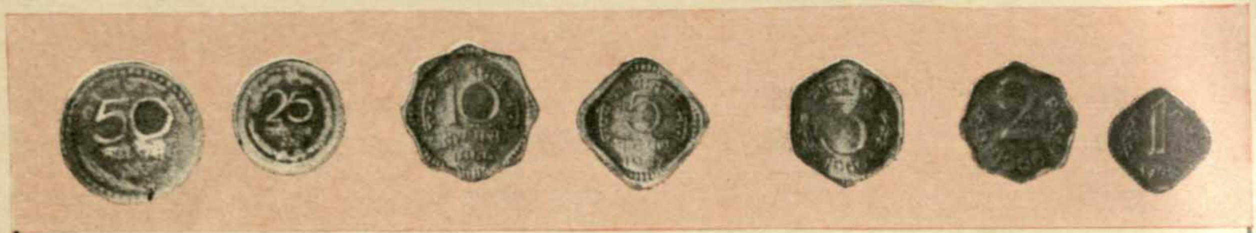
28	32	49	43
− 16	− 11	− 24	− 23

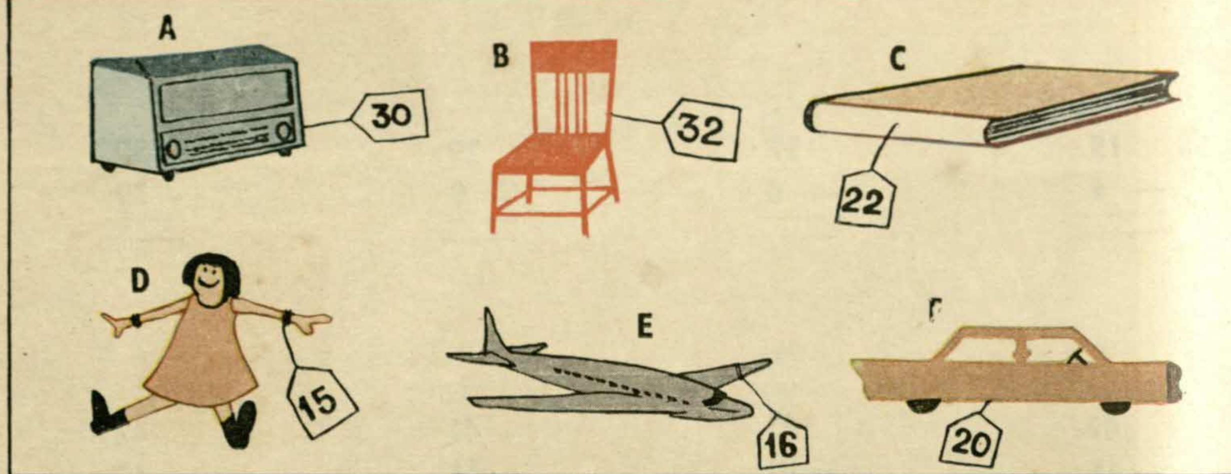
30	37	41	45
− 20	− 15	− 21	− 14

47	35	39	38
− 41	− 25	− 22	− 26

18	48	26	40
− 5	− 8	− 22	− 20

41 − 40 =	26 − 26 =	49 − 11 =	46 − 32 =
15 − 5 =	27 − 6 =	29 − 9 =	39 − 39 =
49 − 48 =	43 − 10 =	41 − 41 =	42 − 12 =
46 − 6 =	37 − 7 =	25 − 5 =	18 − 8 =
98 − 76 =	86 − 34 =	45 − 41 =	64 − 52 =
90 − 80 =	84 − 3 =	35 − 12 =	40 − 40 =





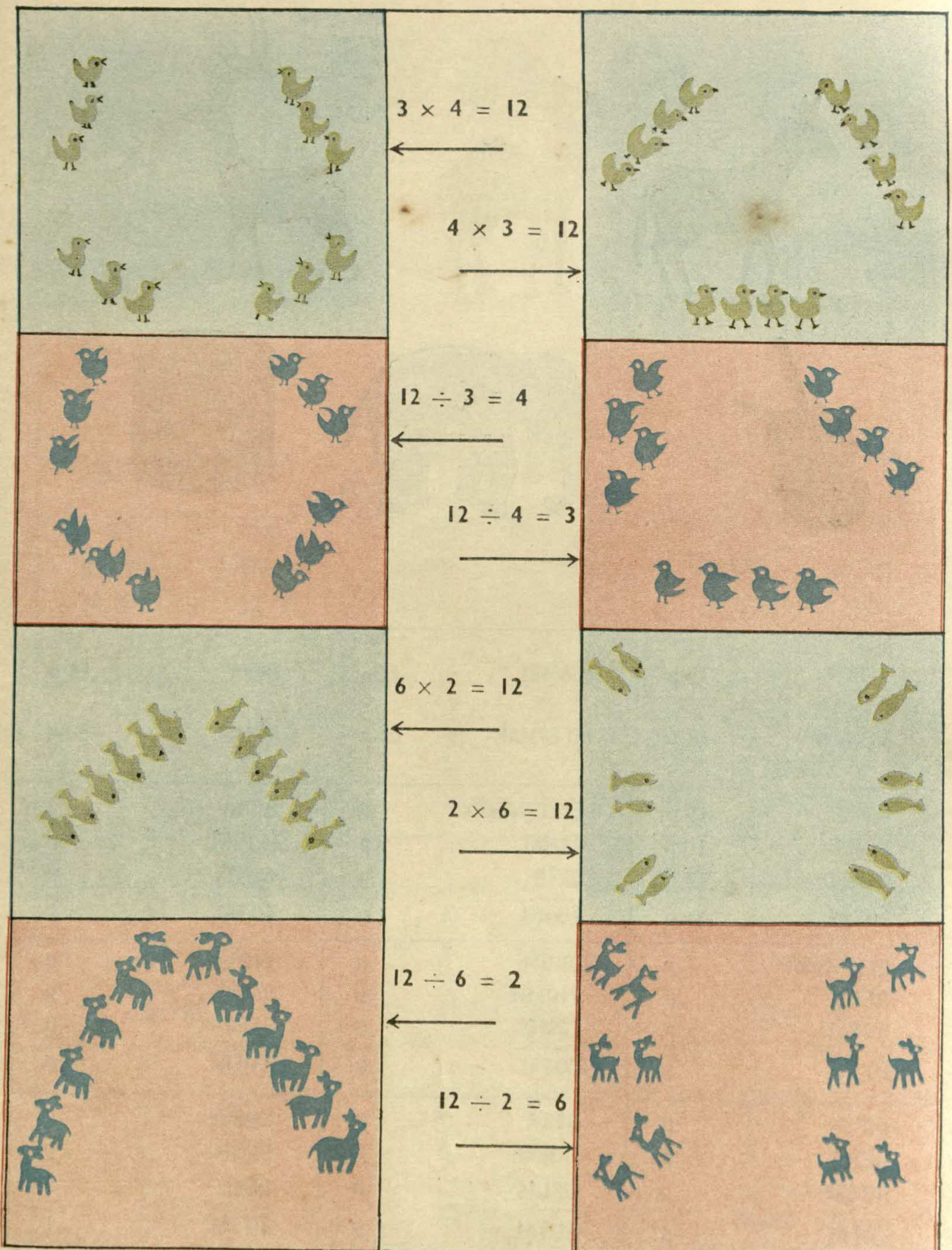
A	B	C	D	E	F
RADIO	CHAIR	BOOK	DOLL	PLANE	CAR
30 P	32 P	22 P	15 P	16 P	20 P

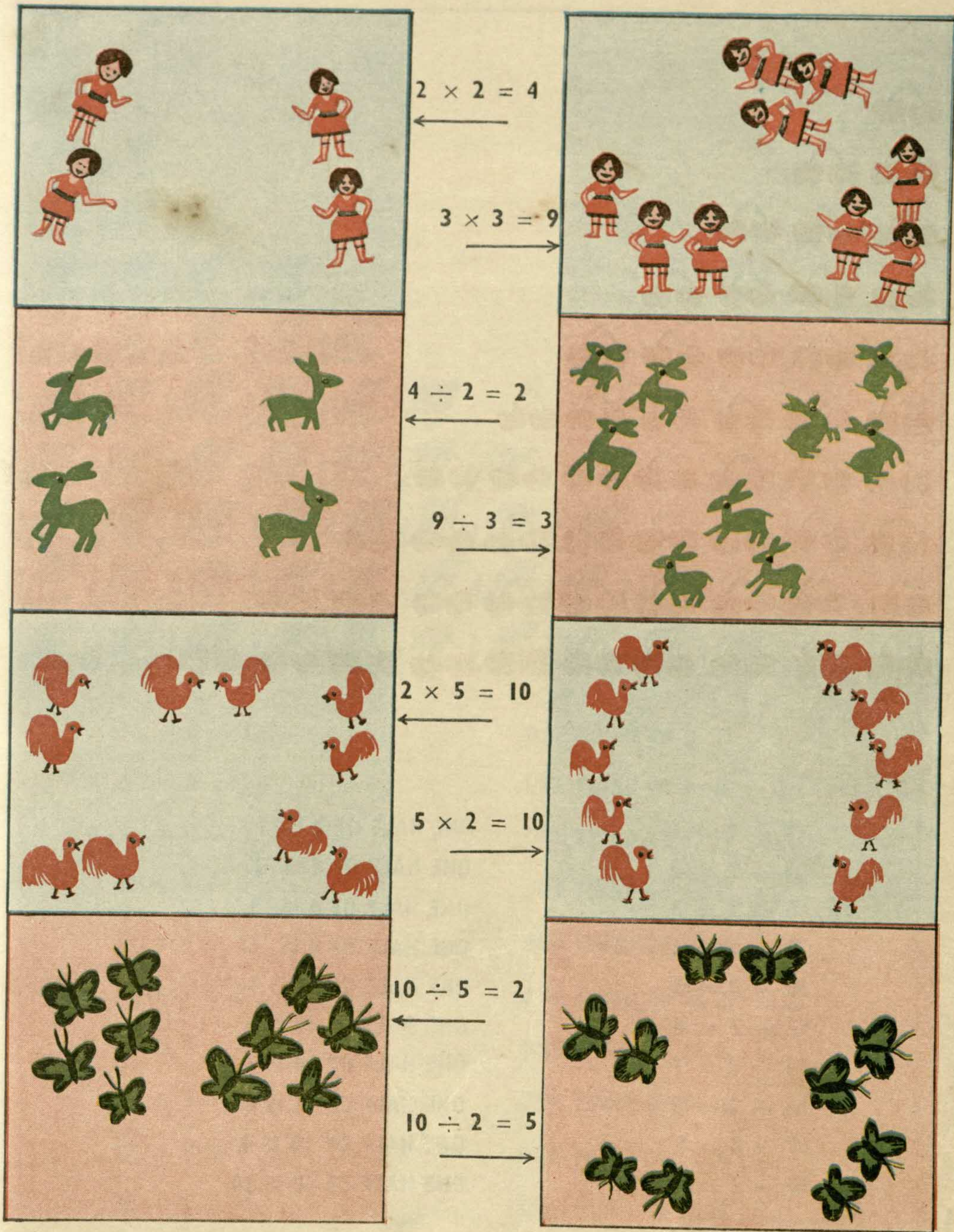
A — 30 P B — 32 P ——— TOTAL P	C ... P A ... P ——— TOTAL P	C ... P D ... P ——— TOTAL P
A P F P ——— TOTAL P	D P E P ——— TOTAL P	B P D P ——— TOTAL P
E ... P B ... P ——— TOTAL P	D P F P ——— TOTAL P	B P F P ——— TOTAL P

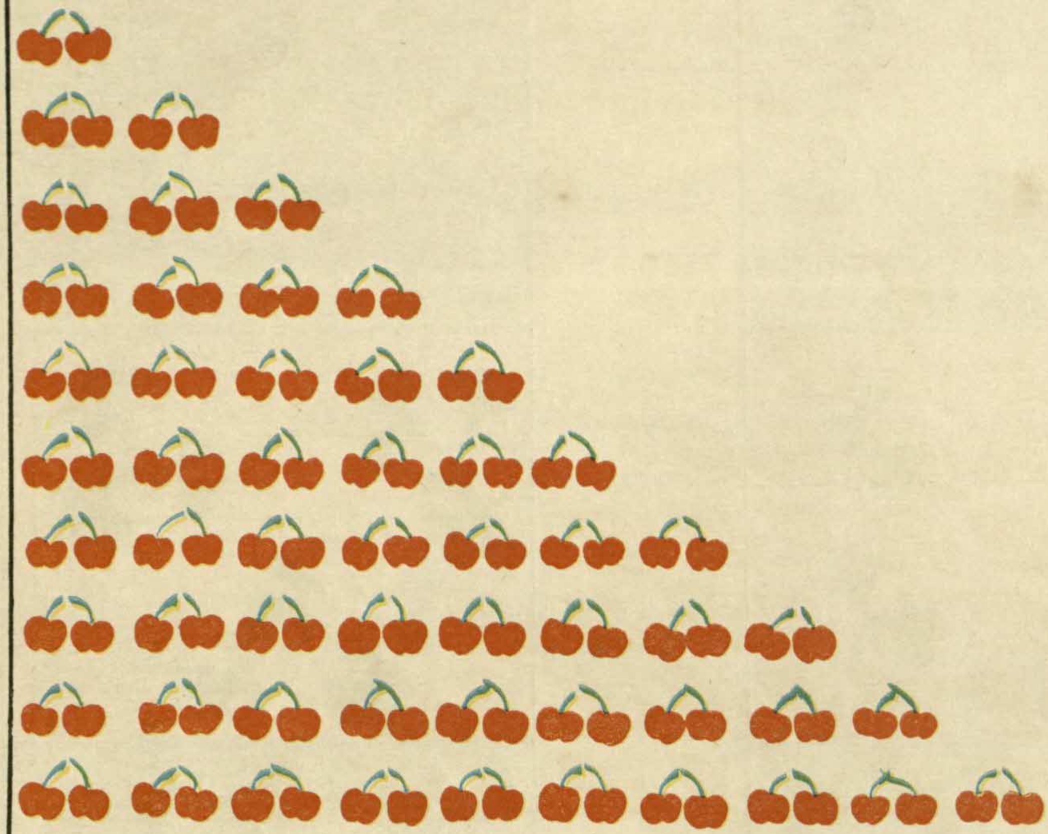


HORSE	:	15 p	CAMEL	:	13 p	DEER	:	14 p
VIOLIN	:	10 p	ELEPHANT	:	62 p	DRUM	:	50 p

HORSE	:	15 p	ELEPHANT	:	p	DRUM	:	p
VIOLIN	:	10 p	CAMEL	:	p	HORSE	:	p
CAMEL	:	13 p	DEER	:	p	CAMEL	:	p
TOTAL	:	38 p	TOTAL	:	p	TOTAL	:	p
ELEPHANT	:	p	DRUM	:	p	VIOLIN	:	p
DEER	:	p	VIOLIN	:	p	CAMEL	:	p
HORSE	:	p	CAMEL	:	p	DEER	:	p
TOTAL	:	p	TOTAL	:	p	TOTAL	:	p
DRUM	:	p	DEER	:	p	HORSE	:	p
DEER	:	p	HORSE	:	p	DRUM	:	p
HORSE	:	p	DRUM	:	p	DEER	:	p
TOTAL	:	p	TOTAL	:	p	TOTAL	:	p


$3 \times 4 = 12$
$4 \times 3 = 12$
$12 \div 3 = 4$
$12 \div 4 = 3$
$6 \times 2 = 12$
$2 \times 6 = 12$
$12 \div 6 = 2$
$12 \div 2 = 6$


2 × 2 = 4
3 × 3 = 9
4 ÷ 2 = 2
9 ÷ 3 = 3
2 × 5 = 10
5 × 2 = 10
10 ÷ 5 = 2
10 ÷ 2 = 5



$2 \times 1 = 2$

$2 \times 2 = 4$

$2 \times 3 = 6$

$2 \times 4 = 8$

$2 \times 5 = 10$

$2 \times 6 = 12$

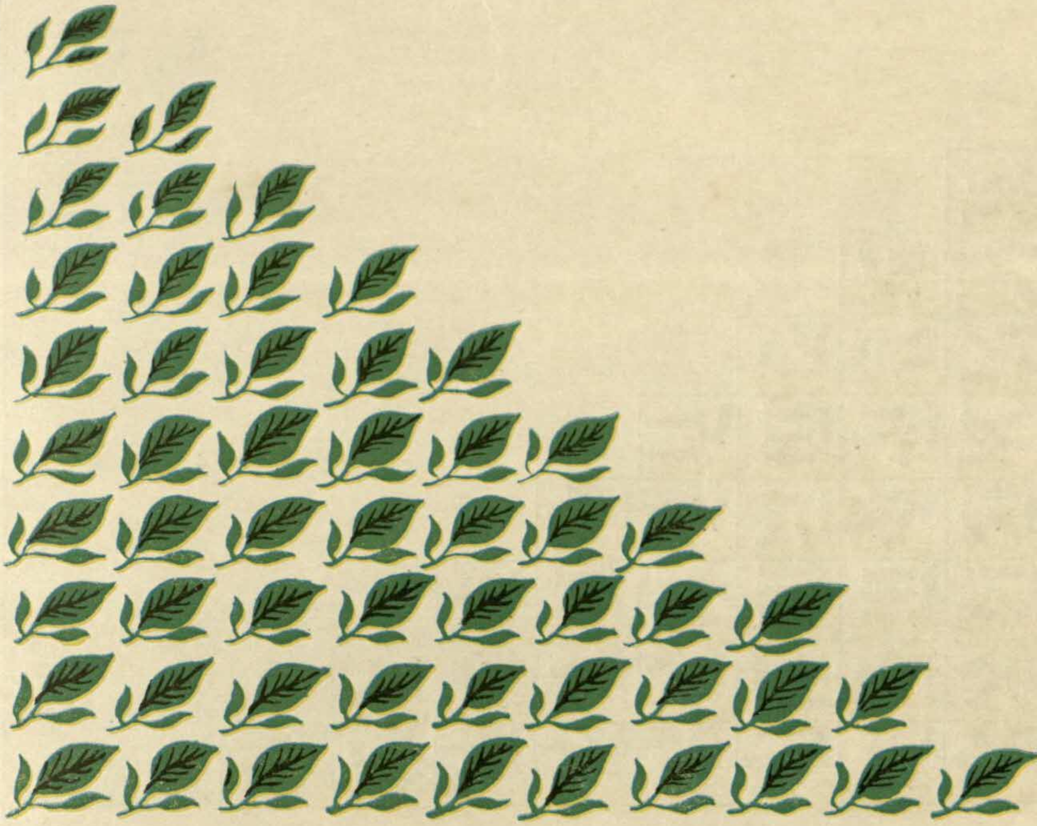
$2 \times 7 = 14$

$2 \times 8 = 16$

$2 \times 9 = 18$

$2 \times 10 = 20$

$2 \div 2 = 1$	ONE HALF OF 2 IS 1
$4 \div 2 = 2$	ONE HALF OF 4 IS 2
$6 \div 2 = 3$	ONE HALF OF 6 IS 3
$8 \div 2 = 4$	ONE HALF OF 8 IS 4
$10 \div 2 = 5$	ONE HALF OF 10 IS 5
$12 \div 2 = 6$	ONE HALF OF 12 IS 6
$14 \div 2 = 7$	ONE HALF OF 14 IS 7
$16 \div 2 = 8$	ONE HALF OF 16 IS 8
$18 \div 2 = 9$	ONE HALF OF 18 IS 9
$20 \div 2 = 10$	ONE HALF OF 20 IS 10



3 × 1 = 3

3 × 2 = 6

3 × 3 = 9

3 × 4 = 12

3 × 5 = 15

3 × 6 = 18

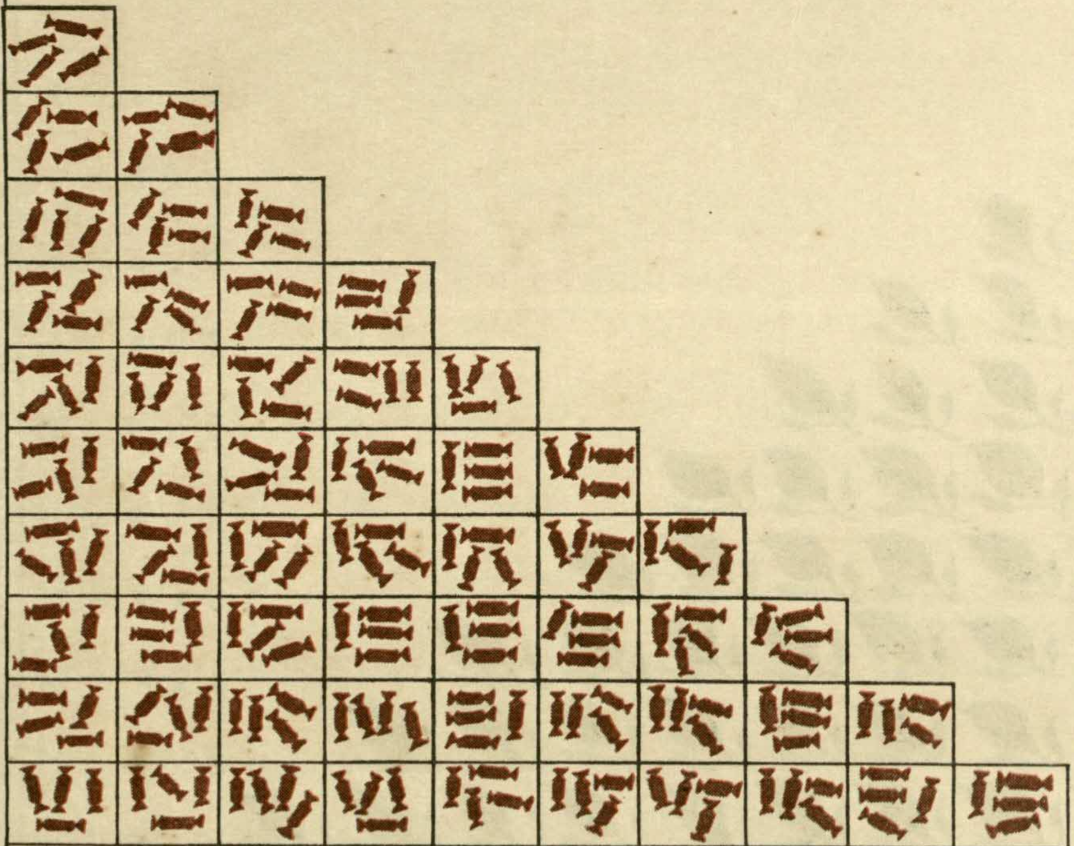
3 × 7 = 21

3 × 8 = 24

3 × 9 = 27

3 × 10 = 30

3 ÷ 3 = 1	ONE THIRD OF 3 IS 1
6 ÷ 3 = 2	ONE THIRD OF 6 IS 2
9 ÷ 3 = 3	ONE THIRD OF 9 IS □
12 ÷ 3 = 4	ONE THIRD OF 12 IS □
15 ÷ 3 = 5	ONE THIRD OF 15 IS □
18 ÷ 3 = 6	ONE THIRD OF 18 IS □
21 ÷ 3 = 7	ONE THIRD OF 21 IS □
24 ÷ 3 = 8	ONE THIRD OF 24 IS □
27 ÷ 3 = 9	ONE THIRD OF 27 IS □
30 ÷ 3 = 10	ONE THIRD OF 30 IS □



$4 \times 1 = 4$

$4 \times 2 = 8$

$4 \times 3 = 12$

$4 \times 4 = 16$

$4 \times 5 = 20$

$4 \times 6 = 24$

$4 \times 7 = 28$

$4 \times 8 = 32$

$4 \times 9 = 36$

$4 \times 10 = 40$

$4 \div 4 = 1$	ONE FOURTH OF 4 IS 1
$8 \div 4 = 2$	ONE FOURTH OF 8 IS 2
$12 \div 4 = 3$	ONE FOURTH OF 12 IS ☐
$16 \div 4 = 4$	ONE FOURTH OF 16 IS ☐
$20 \div 4 = 5$	ONE FOURTH OF 20 IS ☐
$24 \div 4 = 6$	ONE FOURTH OF 24 IS ☐
$28 \div 4 = 7$	ONE FOURTH OF 28 IS ☐
$32 \div 4 = 8$	ONE FOURTH OF 32 IS ☐
$36 \div 4 = 9$	ONE FOURTH OF 36 IS ☐
$40 \div 4 = 10$	ONE FOURTH OF 40 IS ☐

$5 \times 1 = 5$

$5 \times 2 = 10$

$5 \times 3 = 15$

$5 \times 4 = 20$

$5 \times 5 = 25$

$5 \times 6 = 30$

$5 \times 7 = 35$

$5 \times 8 = 40$

$5 \times 9 = 45$

$5 \times 10 = 50$



$5 \div 5 = 1$

$10 \div 5 = 2$

$15 \div 5 = 3$

$20 \div 5 = 4$

$25 \div 5 = 5$

$30 \div 5 = 6$

$35 \div 5 = 7$

$40 \div 5 = 8$

$45 \div 5 = 9$

$50 \div 5 = 10$

Think and answer

How many Fives are there in 10 ? ☐

How many Fives are there in 15 ? ☐

How many Fives are there in 20 ? ☐

How many Fives are there in 25 ? ☐

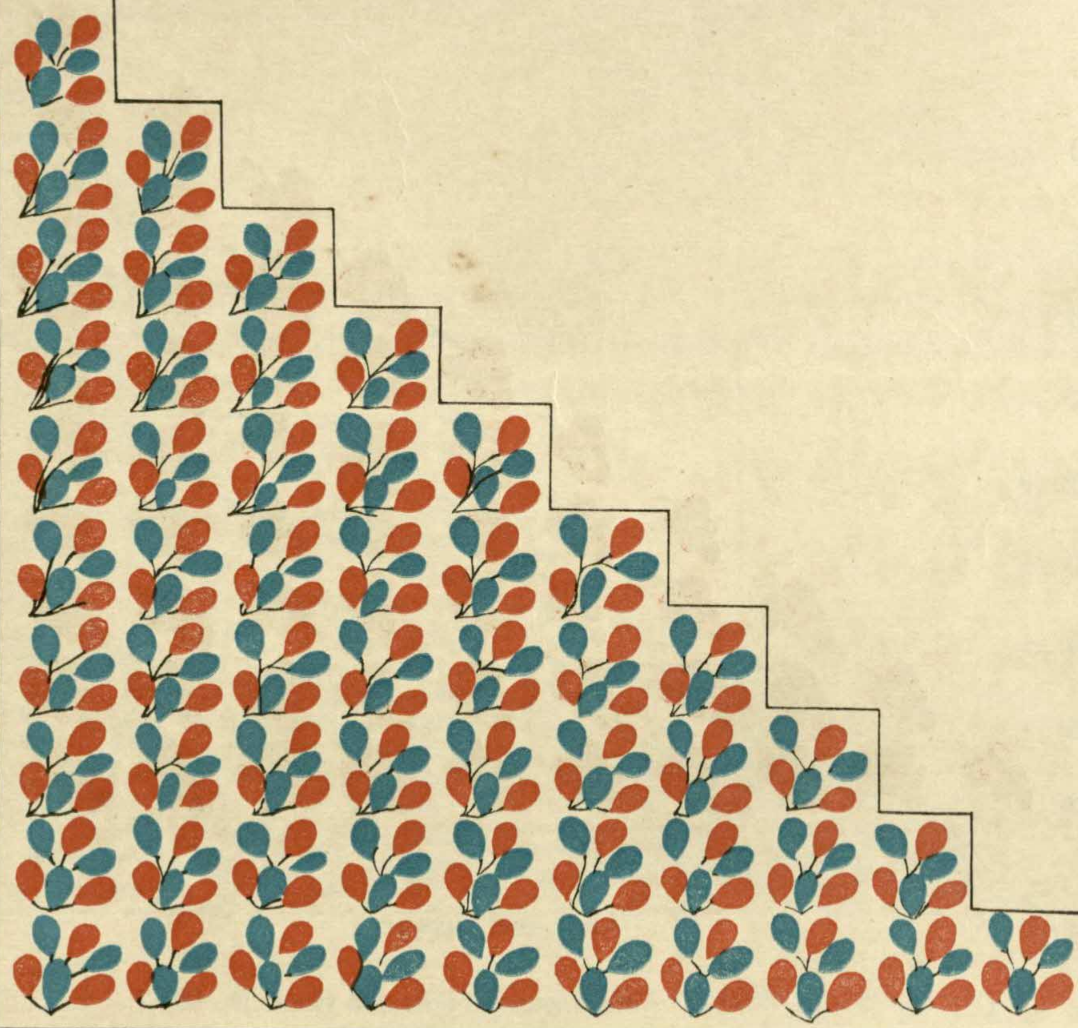
How many Fives are there in 30 ? ☐

How many Fives are there in 35 ? ☐

How many Fives are there in 40 ? ☐

How many Fives are there in 45 ? ☐

How many Fives are there in 50 ? ☐



$6 \times 1 = 6$

$6 \times 2 = 12$

$6 \times 3 = 18$

$6 \times 4 = 24$

$6 \times 5 = 30$

$6 \times 6 = 36$

$6 \times 7 = 42$

$6 \times 8 = 48$

$6 \times 9 = 54$

$6 \times 10 = 60$

$6 \div 6 = 1$	$36 \div 6 = 6$
$12 \div 6 = 2$	$42 \div 6 = 7$
$18 \div 6 = 3$	$48 \div 6 = 8$
$24 \div 6 = 4$	$54 \div 6 = 9$
$30 \div 6 = 5$	$60 \div 6 = 10$



7 × 1	=	7
7 × 2	=	14
7 × 3	=	21
7 × 4	=	28
7 × 5	=	35
7 × 6	=	42
7 × 7	=	49
7 × 8	=	56
7 × 9	=	63
7 × 10	=	70

$7 \div 7 = 1$ **THINK AND ANSWER**

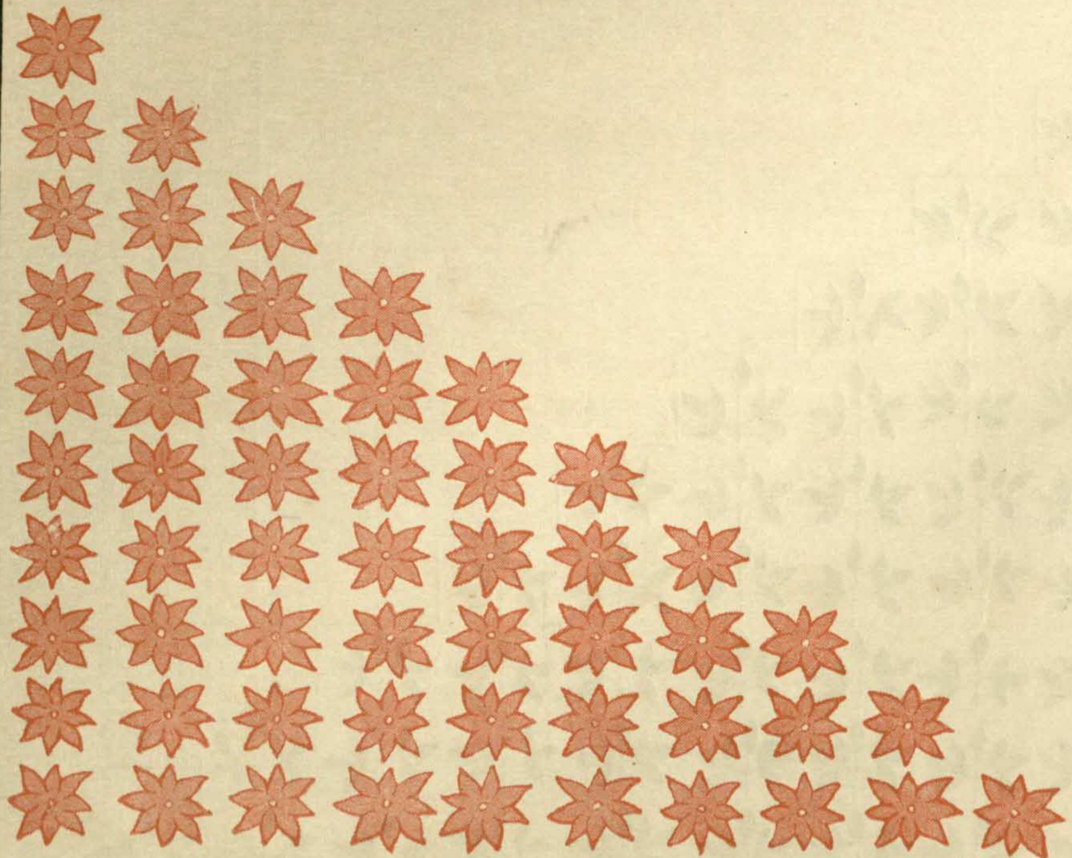
$14 \div 7 = 2$ **HOW MANY SEVENS ARE THERE IN 14?** [ ]

$21 \div 7 = 3$ **HOW MANY SEVENS ARE THERE IN 21?** [ ]

$28 \div 7 = 4$ **HOW MANY SEVENS ARE THERE IN 28?** [ ]

$35 \div 7 = 5$ **HOW MANY SEVENS ARE THERE IN 35?** [ ]

$42 \div 7 = 6$ **HOW MANY SEVENS ARE THERE IN 42?** [ ]



8 × 1 = 8

8 × 2 = 16

8 × 3 = 24

8 × 4 = 32

8 × 5 = 40

8 × 6 = 48

8 × 7 = 56

8 × 8 = 64

8 × 9 = 72

8 × 10 = 80

8 ÷ 8 = 1

16 ÷ 8 = 2

24 ÷ 8 = 3

32 ÷ 8 = 4

40 ÷ 8 = 5

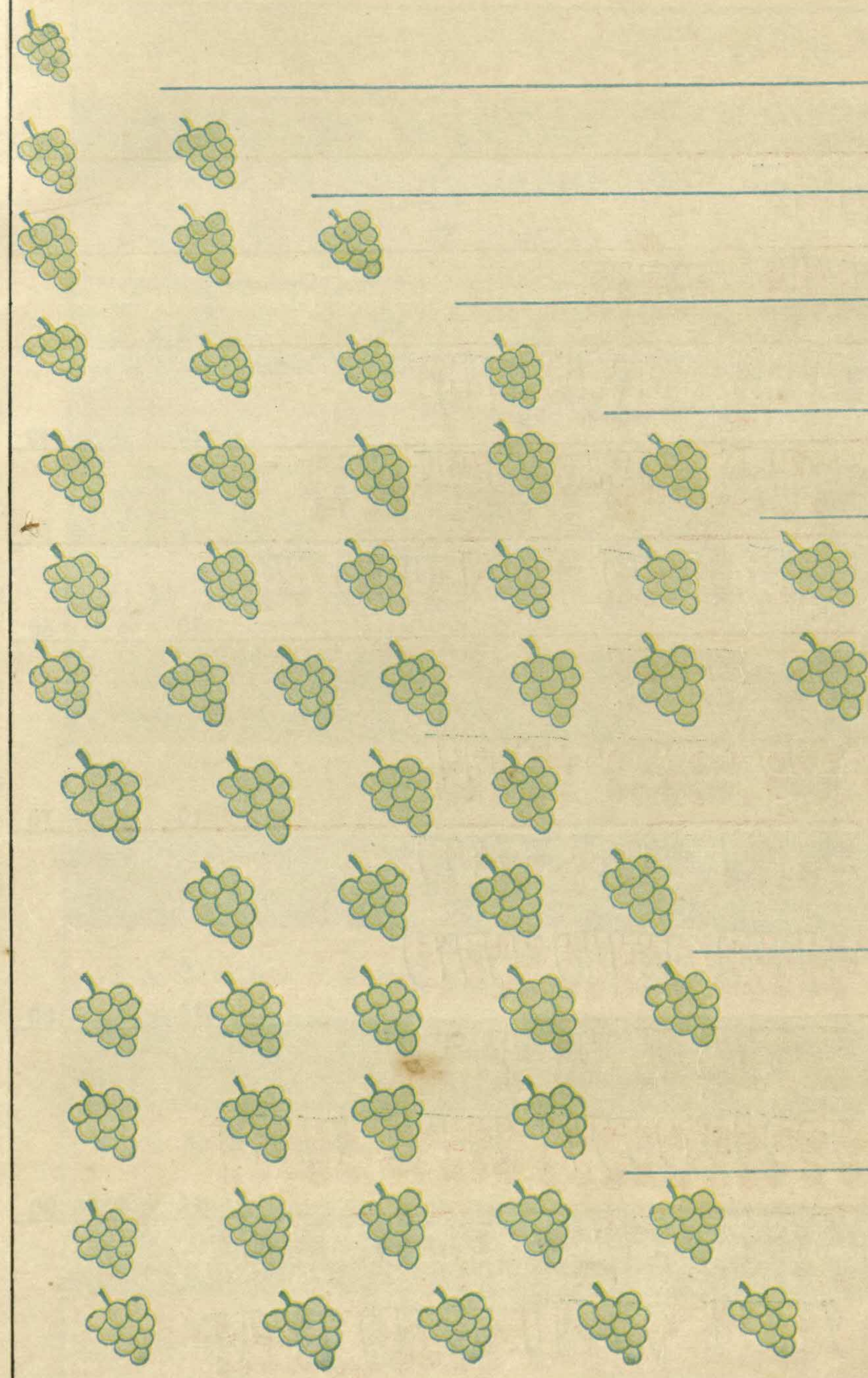
48 ÷ 8 = 6

56 ÷ 8 = 7

64 ÷ 8 = 8

72 ÷ 8 = 9

80 ÷ 8 = 10



9 × 1 = 9

9 × 2 = 18

9 × 3 = 27

9 × 4 = 36

9 × 5 = 45

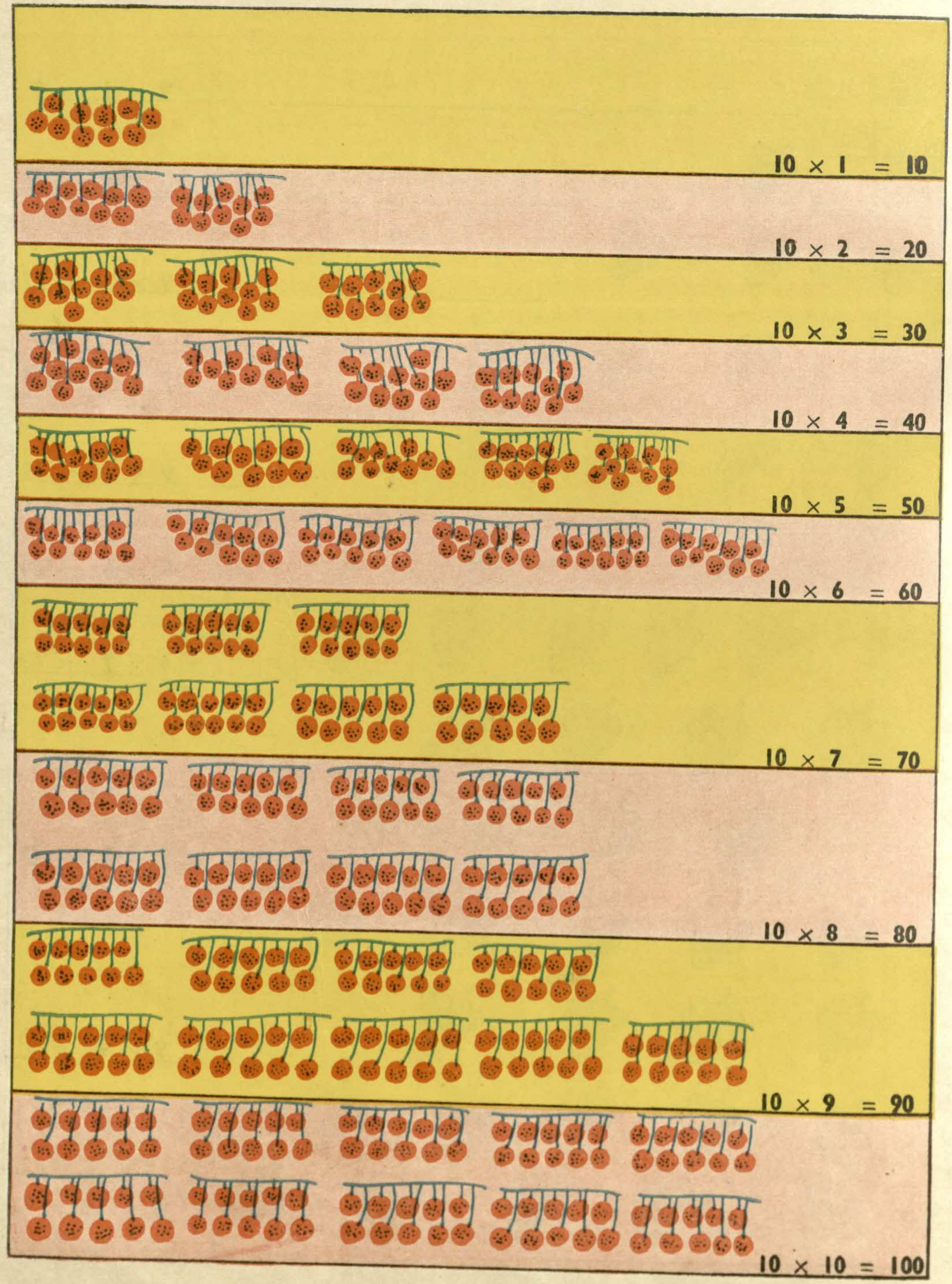
9 × 6 = 54

9 × 7 = 63

9 × 8 = 72

9 × 9 = 81

9 × 10 = 90


10 × 1 = 10
10 × 2 = 20
10 × 3 = 30
10 × 4 = 40
10 × 5 = 50
10 × 6 = 60
10 × 7 = 70
10 × 8 = 80
10 × 9 = 90
10 × 10 = 100

MULTIPLICATION TABLE

X	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

$3 \times 2 = 6$ $2 \times 3 = 6$ $4 \times 5 = 20$ $5 \times 4 = \square$

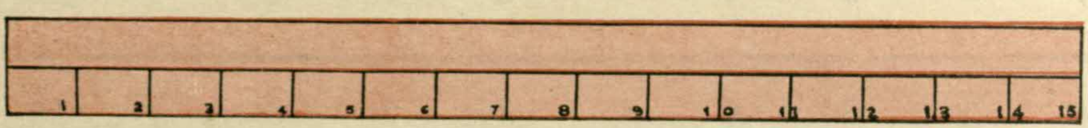
$6 \times 7 = \square$ $7 \times 6 = \square$ $8 \times 9 = \square$ $9 \times 8 = \square$

$(2 \times 3) \times 2 = 6 \times 2 = \square$ $2 \times (3 \times 2) = 2 \times 6 = \square$

$(4 \times 1) \times 3 = 4 \times 3 = \square$ $4 \times (1 \times 3) = 4 \times 3 = \square$

$5 \times (2 + 4) = 5 \times 6 = \square$ $(5 \times 2) + (5 \times 4) = 10 + 20 = \square$

$3 \times (4 + 5) = 3 \times 8 = \square$ $(3 \times 4) + (3 \times 5) = 12 + 15 = \square$



100 CMS = 1 METRE

LENGTH OF CLASS ROOM =

BREADTH OF CLASS ROOM =

LENGTH OF VERANDAH =

BREADTH OF VERANDAH =

BREADTH OF BLACKBOARD =

MY HEIGHT =

MY CHEST (EXPANDED) =

MY CHEST (NORMAL) =

LENGTH OF TEACHER'S TABLE =

BREADTH OF TEACHER'S TABLE =

HEIGHT OF TEACHER'S TABLE =

LENGTH OF ENGLISH BOOK =

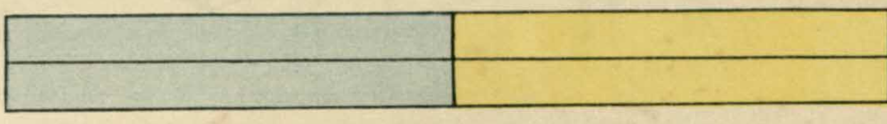
BREADTH OF ENGLISH BOOK =

LENGTH OF ARITHMETIC BOOK =

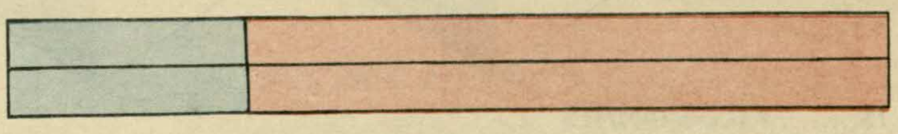
MEASURE THE LENGTH OF COLOUR



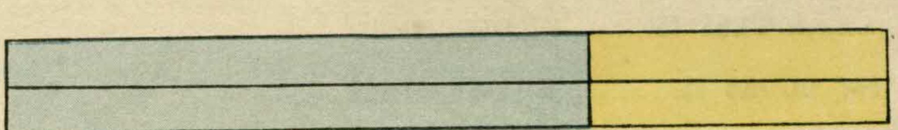
... CMS



... CMS

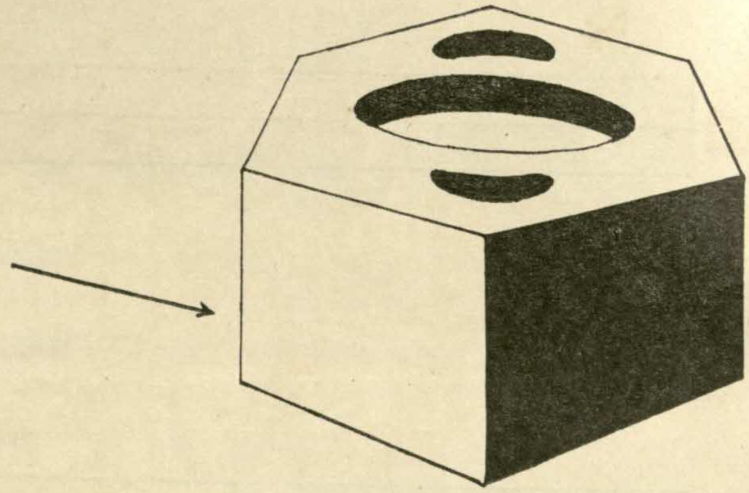


... CMS



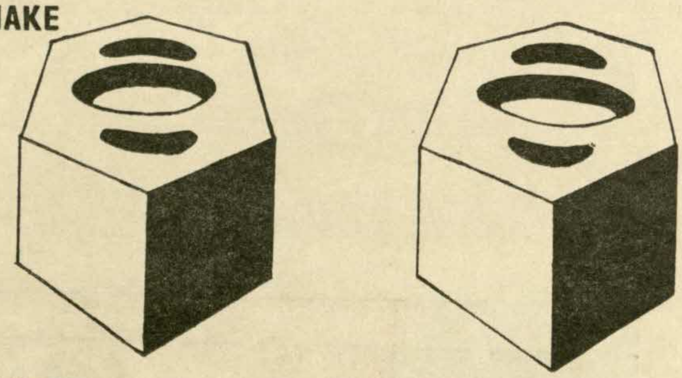
... CMS

THIS IS A KILOGRAMME



TWO HALF KILOGRAMMES MAKE

I KILOGRAMME.



MY WEIGHT IS.........KILOGRAMMES

MY TEACHER'S WEIGHT IS.........KILOGRAMMES

...............'S WEIGHT IS.........KILOGRAMMES

...............'S WEIGHT IS.........KILOGRAMMES

.............'S WEIGHT IS.........KILOGRAMMES

WEIGHT OF.........APPLES IS.........KILOGRAMMES

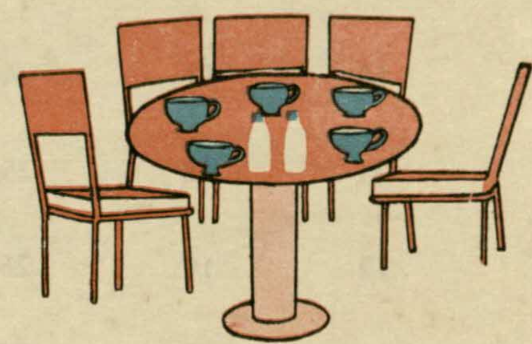
WEIGHT OF MY BOOKS IS............KILOGRAMMES

ONE KILOGRAMME OF SWEETS COSTS RS. ....

ONE KILOGRAMME OF BUTTER COSTS RS. ....

ONE KILOGRAMME OF COFFEE COSTS RS. ....

ONE KILOGRAMME OF TEA COSTS RS. ....



ARUN'S MOTHER BUYS TWO BOTTLES OF MILK.

SHE POURS THE MILK INTO FIVE CUPS.

EACH BOTTLE CONTAINS HALF LITRE MILK.

TWO BOTTLES CONTAIN ONE LITRE MILK.

SMALL BOTTLE CONTAINS ONLY QUARTER LITRE MILK.

FOUR SMALL BOTTLES CONTAIN ONE LITRE MILK.

JANUARY 1967

SUNDAY	1	8	15	22	29
MONDAY	2	9	16	23	30
TUESDAY	3	10	17	24	31
WEDNESDAY	4	11	18	25	
THURSDAY	5	12	19	26	
FRIDAY	6	13	20	27	
SATURDAY	7	14	21	28	

MONTHS	DAYS	SUN	MON	TUES	WED	THURS	FRI	SAT
JANUARY								
FEBRUARY								
MARCH								
APRIL								
MAY								
JUNE								
JULY								
AUGUST								
SEPTEMBER								
OCTOBER								
NOVEMBER								
DECEMBER								

A YEAR HAS .... MONTHS
A YEAR HAS ....WEEKS
A WEEK HAS ....DAYS
A DAY HAS ....HOURS
AN HOUR HAS .... MINUTES
A MINUTE HAS ....SECONDS

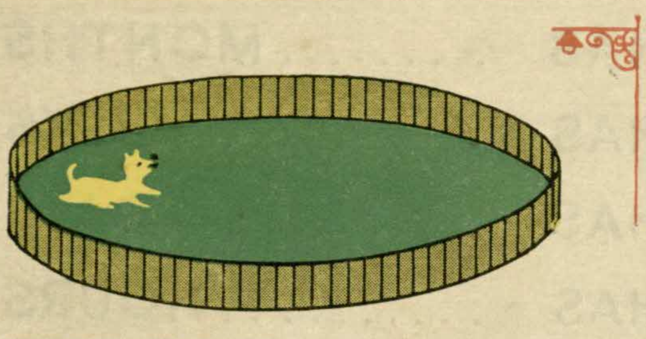
MONTHS OF A YEAR ARE :

JANUARY FEBRUARY MARCH
APRIL MAY JUNE
JULY AUGUST SEPTEMBER
OCTOBER NOVEMBER DECEMBER

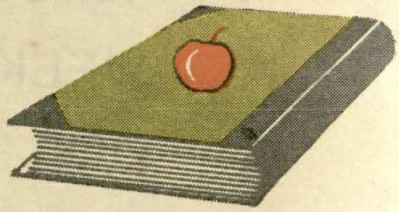
DAYS OF A WEEK ARE :

SUNDAY MONDAY TUESDAY
WEDNESDAY THURSDAY FRIDAY
SATURDAY

I WAS BORN ON A ....
I WAS BORN IN THE MONTH OF......

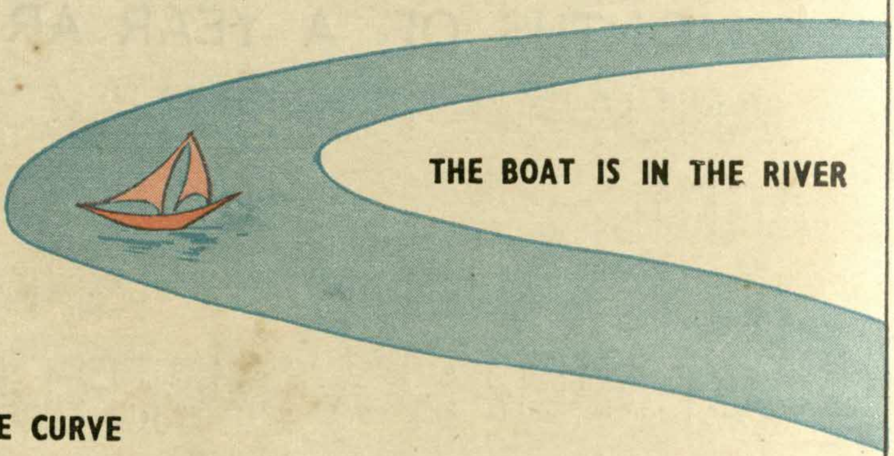


BOUNDARY OF A FIELD IS A CLOSED CURVE
DOG IS INSIDE
LAMP-POST IS OUTSIDE



APPLE IS ON THE..................

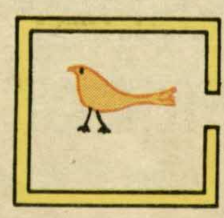


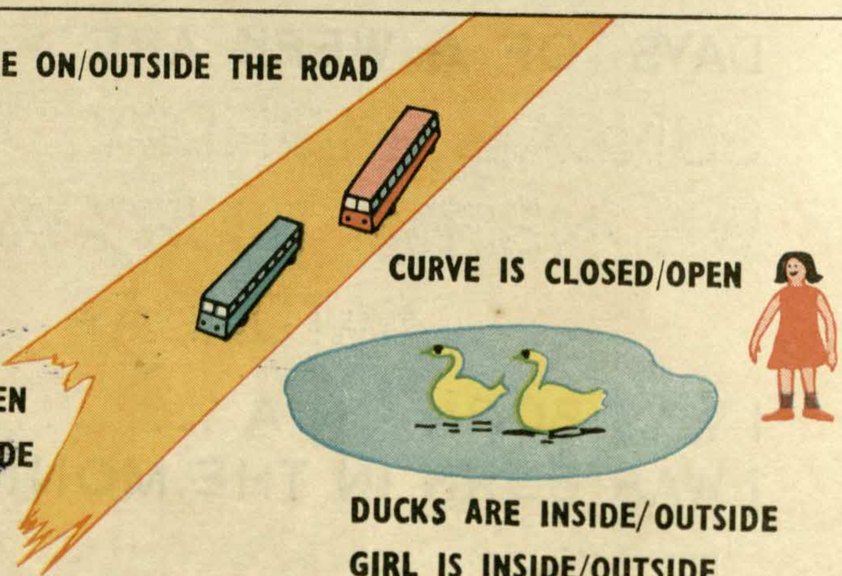


THE BOAT IS IN THE RIVER

CURVE IS CLOSED
FLOWER IS INSIDE THE CURVE

BUSES ARE ON/OUTSIDE THE ROAD

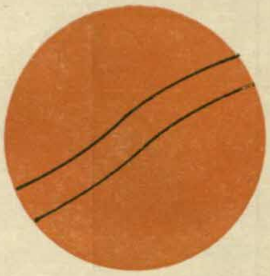




CURVE IS CLOSED/OPEN

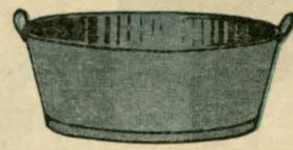
CURVE IS CLOSED/OPEN
BIRD IS INSIDE/OUTSIDE

DUCKS ARE INSIDE/ OUTSIDE
GIRL IS INSIDE/OUTSIDE


CLOSED/OPEN


CLOSED/OPEN

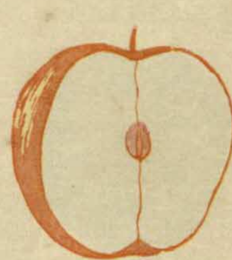

CLOSED/OPEN

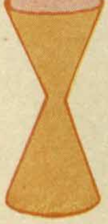

CLOSED/OPEN


CLOSED/OPEN


CLOSED/OPEN


CLOSED/OPEN

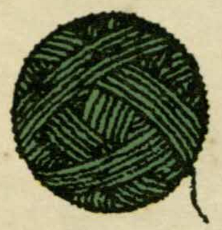
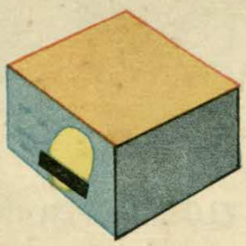
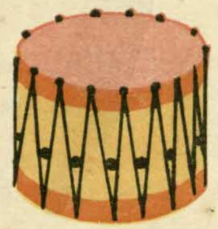
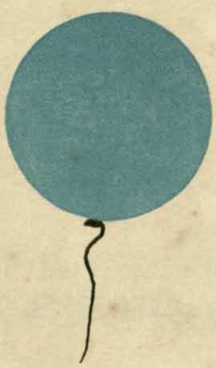
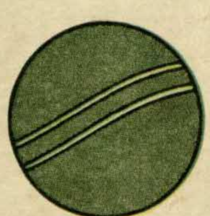
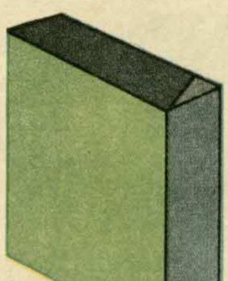

CLOSED/OPEN


CLOSED/OPEN

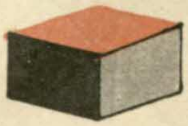

CLOSED/OPEN


CLOSED/OPEN


CLOSED/OPEN

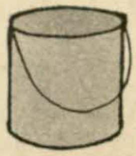
SPHERICAL	RECTANGULAR	CYLINDRICAL	CONICAL
			
			
			

CROSS WHATEVER IS WRONG



SPHERICAL

RECTANGULAR



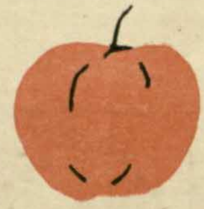
CYLINDRICAL

SPHERICAL



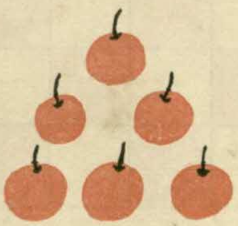
CYLINDRICAL

CONICAL



RECTANGULAR

SPHERICAL



CONICAL

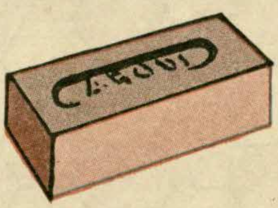
SPHERICAL



SPHERICAL

CYLINDRICAL

CONICAL



RECTANGULAR

CYLINDRICAL

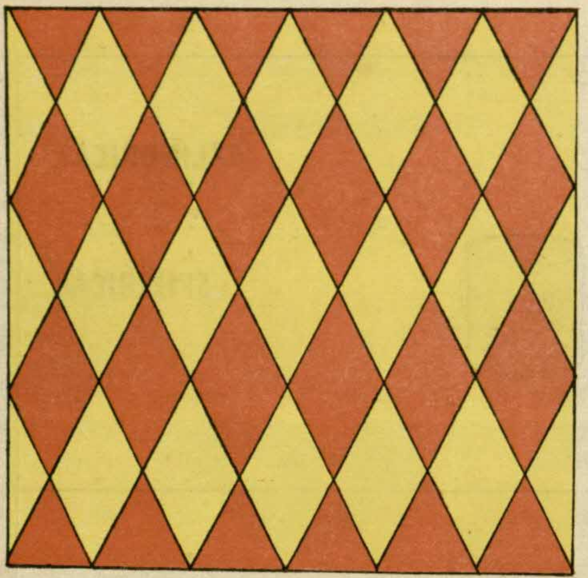
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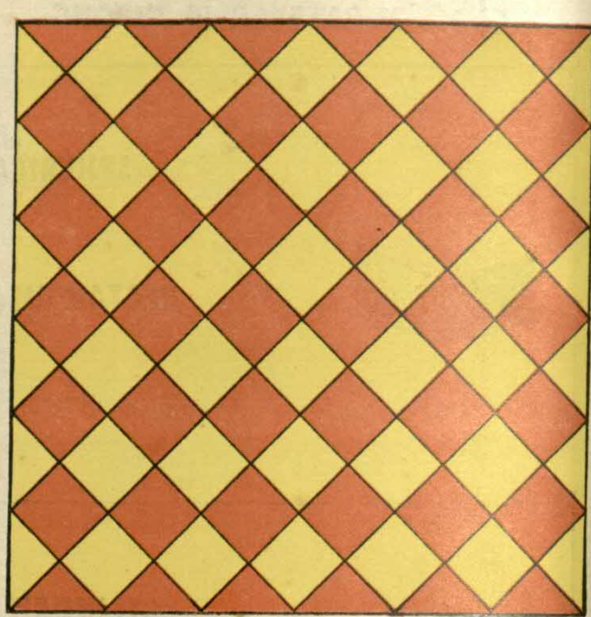


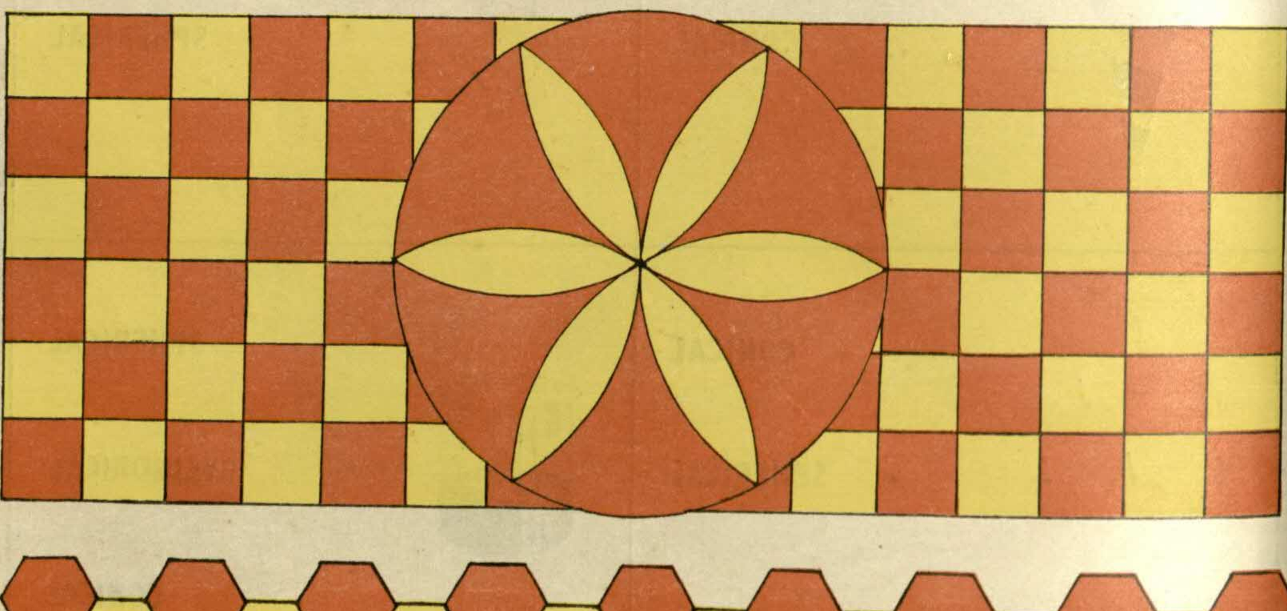
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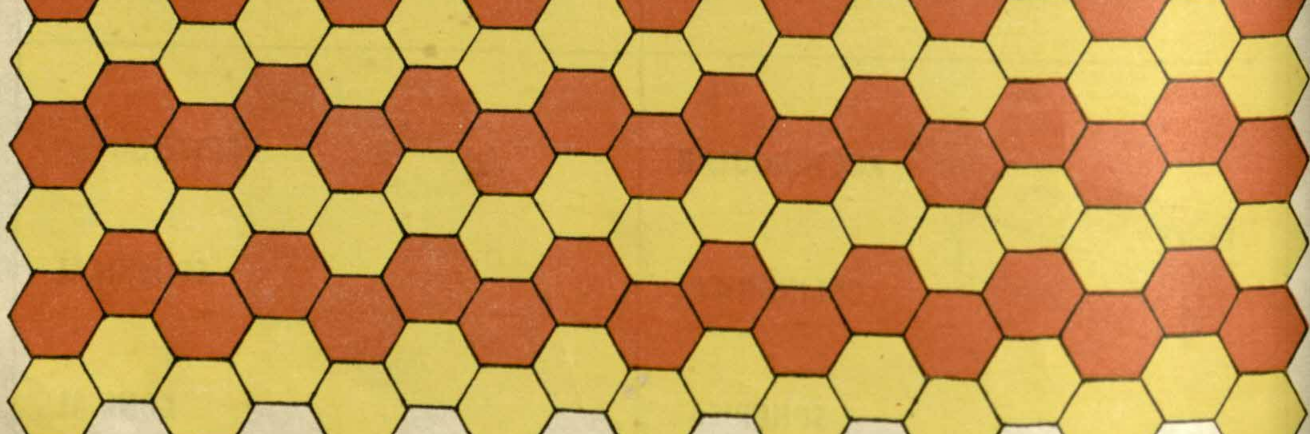
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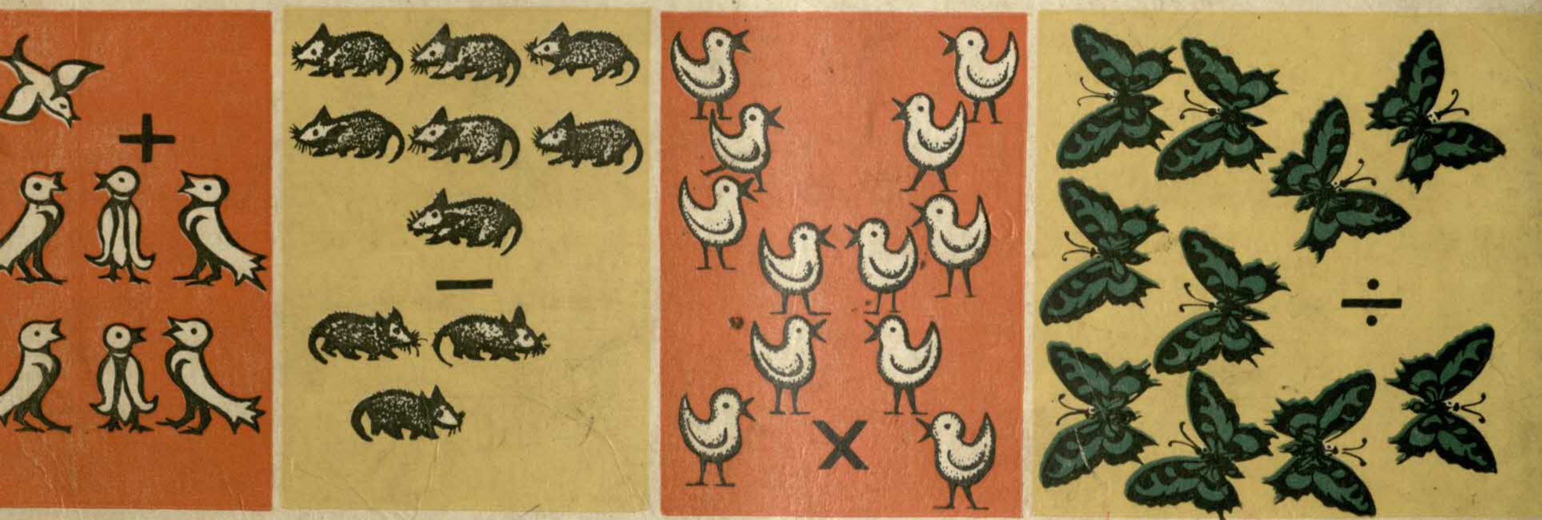
CONICAL











NCERT TEXTBOOK

